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ABSTRACT

In 1988, the Texas student aid community addressed the issue of defaults in the guaranteed student loan program, creating a strategic default initiative. In June 1998, this same group of student aid officials met again to examine the current status of defaults and to share ideas on ways to prevent defaults. This report was intended as a resource for conference participants. It updates recommendations made in 1988 and clarifies the latest research on defaults in Texas. Following a brief introduction, the report revisits the initial initiative and makes several new recommendations, addressing issues such as: administrative practices; preloan counseling and early financial planning; state and national legislative initiatives; debt management; and loan servicing. In section 3, reviewing historical trends, grant-to-loan imbalances, portfolio mix, cohort default rates, and default claims are discussed. Section 4 examines the traits and indicators associated with defaulting. Section 5 lists 5 policy implications arising from the various findings noting that defaults are not confined to one school sector, the need for wise education investments, the necessity to limit borrowing for students at-risk of defaulting, the need to promote academic success, and the need to help students find and keep jobs. Appended are a review of the 1988 recommendations and a discussion of the model development. (Contains 16 references and 26 endnotes.) (MAB)

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Executive Summary

The Texas student aid community will gather in Austin on June 8 to discuss the current state of student loan defaults. The meeting follows ten years after a similar conference first addressed the issue. This paper (1) provides a review of the recommendations made at the 1988 Strategic Default Initiative (SDI) conference, (2) traces significant trends in student loan defaults in Texas, (3) describes an econometric model for predicting default behavior, and (4) explores the public policy implications of the findings. The student default situation has substantially changed since 1988. Default rates have declined and the typical defaulter no longer attends short-term vocational programs. Increasingly, defaulted borrowers have attended four-year schools and have carried larger debt loads than defaulted borrowers did ten years ago.

Defaults are implicit within a system of publicly guaranteed loans. However, the sharp rise in student loan defaults in 1988 threatened the financial stability of the entire student loan program. Conferees offered two hundred and three recommendations to prevent defaults. Texas student loan partners — schools, lenders, secondary markets, student loan servicers and guarantee agencies — adopted many of these proposals as standard business practices. Still other recommendations were written into law by state and federal governments. The policies can be grouped into three major categories: (1) improve communication both with borrowers and among student loan partners, (2) limit borrowing for students most at risk of defaulting, and (3) provide proper incentives for repayment and disincentives for default.

Default rates declined rapidly in response to the implementation of many of the Texas recommendations. Reaching a peak of 33.6 percent in FY 1990, default rates decreased to 14.0 percent just five years later. Lower default rates occurred in all school sectors, but especially among proprietary schools where rates dropped from 48.3 percent in FY 1990 to 23.8 percent in FY 1995. In FY 1990, 70 percent of all default claims paid by TG were for borrowers who last attended a proprietary school. Students from proprietary schools now account for only 26 percent of TG default claims. Meanwhile, in 1990, 20 percent of TG default claims were for four-year college borrowers. By 1997, this percentage had risen to 58 percent. The intervening years saw tremendous growth in borrowing, particularly among those attending four-year schools. While default rates have declined overall, annual default amounts have remained relatively stable.

The need to better understand the characteristics of today's defaulted borrowers prompted the development of an econometric model that can predict, with reasonable accuracy, which borrowers will and will not default. Among the key factors associated with default are:

- Failure to progress academically: Borrowers who are unable to complete their programs of study seldom find jobs related to their training or which allow them to earn enough to repay their loans.
- Proprietary school attendance: Holding other characteristics constant, proprietary school attendance appears to have a negative effect on a borrowers' ability to repay their loans. While the acquisition of additional data may weaken the independence of this effect in the model, it appears as though four- and two-year colleges that offer broader, less specialized, and longer-term education better enable borrowers to repay their loans than those who attend short-term for-profit vocational schools.
- Selecting a school with a previous higher default rate: Choosing a school wisely entails a review of the institution's previous cohort default rates. Previous rates are strong indicators of future default experience.

In-depth interviews were conducted to supplement the quantitative model. These interviews highlighted several important dimensions of the issue of defaults:

- Finding and holding a job are extremely important factors affecting one's ability to repay his or her loans.
- A deep personal commitment to repaying one's loan was very noticeable even among borrowers who have had traumatic life experiences that might have driven other people into default.
- While many borrowers were able to withstand a traumatic life experience (e.g. job loss, large medical expenses, a new dependent, divorce, incarceration, etc.), multiple traumatic experiences often helped send borrowers into default.
- Repayers tended to have a much better understanding of their loan options than defaulters.

From the findings of this report, five major policy implications were discerned:

1. Defaults are not confined to one school sector
   Where once defaults seemed primarily a problem that occurred at proprietary schools, other more traditional school sectors now account for the majority of defaults. The public policy response to today's default situation should address the minority of students at good schools who — as a result of various life traumas — get into trouble with their loans. One way to help borrowers through life's rough spots might be to better inform borrowers of the availability of deferments and forebearances.
2. The need for wise education investments
   While investing in a college education typically pays off quite well, there remains an element of risk in each investment. Prospective students should consider a school's retention, graduation, and default rates when selecting a college. Better consumer information will let prospective students make wiser investment decisions.
3. Limit borrowing for students most at-risk of defaulting.
   Both the econometric model and the anecdotal evidence from the in-depth interviews seem to confirm the connection between dropping out and defaulting. Measures which limit borrowing for early dropouts — such as late and multiple disbursements and low loan limits for first-year borrowers — appear to be sound, provided that schools actually have a problem with early dropouts.
4. Promote academic success.
   Borrowers who progress to higher grade levels and complete their programs of study become more economically productive and less likely to default. Policies and services that promote college retention and persistence will have the added benefit of lowering defaults.
5. Help students find and keep jobs.
   The transition from school to work can be hazardous. Efforts to smooth this transition will go a long way towards empowering borrowers and making them better able to repay their loans. Employment while in school may be beneficial, especially if the work is related to the student's instruction and if the number of hours is low enough to allow for adequate study.

I. Introduction

The Texas student aid community came together in 1988 to address the issue of defaults in the guaranteed student loan program. Defaults had just emerged as a national issue. Then Secretary of Education, William Bennett, had highlighted the issue by recommending the elimination of Title IV student aid eligibility for schools with cohort default rates above 20 percent. The Secretary's comments - and threats - caused an uproar throughout the student aid community. Yet Secretary Bennett had drawn attention to the escalation of defaults. At the time, the Texas Guaranteed Student Loan Corporation (TG) had seen its default claims grow from $7 million in FY 1984 to $70 million in FY 1988. These numbers had human consequences; more and more students were finding their education dreams shattered by their experience with inferior schools, leaving them with huge debts and ruined credit. Texas financial aid officers, lender representatives, and state and federal policymakers joined in an effort to better understand this environment and to search for solutions to some of the deficiencies in the student loan system. Labeled SDI to associate its importance with the Reagan Administration's Strategic Defense Initiative (aka Star Wars), the 1988 default conference was a turning point in student aid administration in Texas.

Ten years later the student aid community returns to the issue of defaults. On June 8, 1998, these same groups of student aid officials will meet again to learn more about the current status of defaults and to share ideas on ways to prevent defaults. This report is designed as a resource for conference participants as well as others interested in the topic. It attempts to update the status of the recommendations made at the 1988 conference and to clarify the latest research on defaults in Texas. The paper consists of five sections:

- Section I: Introduction
- Section II: Strategic Default Initiative Revisited
- Section III: Historical Trends
- Section IV: Predicting Borrowers Who Are Most Likely to Default
- Section V: Policy Implications

"Section II: Strategic Default Initiative Revisited" reexamines the recommendations from the 1988 Strategic Default Initiative conference. These recommendations are divided into seven sections:

- General Recommendations
- Administrative Practices
- Preloan Counseling, Packaging, Early Financial Planning
- State and National Legislative Initiative
- Debt Management
- Servicers - The Parties Involved, Keeping Everyone Informed
- Loan Servicing - The Process — Due Diligence, Student Status Deferments and Skips.

Over the course of the 1988 conference, participants divided into six interest group sessions and came up with 203 recommendations. As you will see, Congress enacted many of these recommendations and/or the student loan industry adopted them as standard practice. Appendix A provides a detailed review of each recommendation. Section III shows the effect of these measures in Texas.

"Section III: Historical Trends" traces the development of student aid and the guaranteed student loan program in Texas. Since 1988, the guaranteed student loan program has grown tremendously. Greater oversight and changes to loan limits have shifted TG's portfolio away from the proprietary school sector and towards 4-year public and private colleges. Default rates have dropped and more students have gained access to higher education through a reliance on student loans. In fact, the magnitude of the increased borrowing has heightened concern about student loan indebtedness and its possible effect on defaults. As Section IV shows, greater indebtedness is one of many indicators associated with a propensity to default.

"Section IV: Predicting Borrowers Who Are Most Likely to Default" is a thorough examination of the traits or indicators associated with defaulting. Using logistic regression analysis, certain key predictors were found to be statistically significant holding

all other traits constant. The results of this analysis allow for a very reliable prediction of which students are most at risk of defaulting. The results shed light on ways of preventing default and make it possible to target default prevention efforts on those most in need of assistance. This quantitative analysis was supplemented by in-depth telephone interviews with borrowers who have left school. The results of these interviews provide additional knowledge into the nature of defaults and let us supplement the quantitative model by looking into the more human elements of the lives of students after they have left school. The quantitative model and the in-depth interviews deepen our understanding of defaults. This knowledge can help us devise more successful ways to prevent defaults.

"Section V: Policy Implications" discusses some of the ramifications of the quantitative research supplemented by in-depth interviews with former student borrowers. These policy implications are understood within a historical context that was shaped, in part, by the actions taken as a result of the 1988 Strategic Default Initiative conference.

II. Strategic Default Initiative Revisited

On April 25, 1988, leaders in the Texas student aid community gathered to discuss the emerging issue of student loan defaults. This group produced one set of general recommendations and six sets of recommendations corresponding to the interest sessions at the conference. In all, there were 203 recommendations. A list of these recommendations can be found in Appendix A. This appendix also includes a description of what has happened with each recommendation since 1988.

General Recommendations

The conferees had seven major recommendations:

1. All participants in the Federal Family Education Loan Program (FFELP) must engage in better, more effective communication with one another.
2. The Congress should appropriate funding to the Department of Education (ED) to begin immediate development of the National Student Loan Data System to centralize borrower tracking.
3. Schools, lenders and guarantors should provide more information to student borrowers on their repayment responsibilities upon entry to college.
4. Borrowers should be contacted by the appropriate parties during the six-month grace period after leaving school and before repayment begins to remind them of their repayment obligations.
5. Borrowers should be required to make nominal payments on their loans while still in school in order to allow them to become accustomed to making payments.
6. Both the state and federal legislative bodies must provide more need-based grant funding in order to reverse the growing imbalance of loan assistance over grant assistance in the student aid program. Too many high-risk students are forced to rely too heavily on loans to finance their postsecondary educations, creating a problem of student debt burden among low-income student borrowers.
7. Students must be made aware by the lender and school financial aid office that a Guaranteed Student Loan is a loan — not a gift — that must be paid back by the student. This point cannot be stressed too strongly.

The imperative to improve communications was a clear message of the 1988 conference. The industry has responded in a variety of ways. TG has increased the number of its reports to schools and lenders; revamped its regulatory newsletter; provided information to students and student loan industry participants via the Internet; and offered opportunities for face-to-face communications through workshops, conferences, industry meetings and the TG Lender/School Advisory committee. The move towards the *Common Manual* and standardization of forms has made communication easier. Schools are more involved with informing students of their loan obligations and lenders actively participate in college nights and outreach efforts. Technological changes and competition with direct lending has brought participants closer together.

Communication among participants was also enhanced by the creation of the National Student Loan Data System (NSLDS). After years of administrative delays and no appropriations, money was finally appropriated and the first loans were loaded onto the system in November of 1994. Schools, lenders, and guarantors participated in improving the quality of the data that populated this database. All FFELP loans active as of October 1, 1989, were initially loaded onto the system. Direct loans, Perkins loans, Pell overpayments, and loans held by ED's Debt Collection Service followed. Monthly updates from guarantors, schools, the Direct Loan servicer, other Title IV systems, and lenders and servicers, keep data current. NSLDS now contains over 100 million loans for 37 million students. The system is used to pre-screen and post-screen student aid applications, calculate Cohort Default Rates, maintain the Student Status Confirmation Reports (SSCR) process, produce Student Aid Reports (SAR) and Institutional Student Information Records (ISIR), provide Financial Aid Transcript (FAT) data, and support Borrower Tracking.

The conference participants recommended that schools conduct entrance counseling sessions with student borrowers. On August 24, 1989, Congress required entrance counseling for all first-time borrowers. Schools have refined this process over the years, but concerns remain about the level of receptivity of students for this information at matriculation.

The fourth recommendation stated the need for more information for students during their grace period. Borrowers now receive far more information on their loans at the end of their educational careers than they did in 1988. In 1992, Congress required exit counseling for all borrowers. With assistance from TG, schools maintain closer contact with borrowers entering repayment and frequently have hired default prevention coordinators and consultants to facilitate this effort. In the fall of 1996, TG developed a student loan inquiry system on the Internet as an additional way that students can learn more about the current status of their loans.

The conferees recommended that students make nominal payments on their loans while still in school. The rationale was that it would develop good habits and help maintain lender contact. However, Congress has never required nominal payments. Detractors argued that it would be administratively burdensome and expensive to implement such a plan.

The sixth recommendation called for an increase in need-based grant aid. The conference participants saw too many students from low-income families rely heavily on loans despite the risks involved. Since FY 1989, need-based grants in Texas (state and federal) rose from $294 million to $442 million in FY 1996. Most of this increase came from the federal government that grew its need-based grants from $248 million in FY 1989 to $346 million in FY 1996. The State of Texas increased its need-based grants from $46 million in FY 1989 to $96 million in FY 1996. Unfortunately, college costs rose more quickly forcing greater numbers of students to borrow more heavily to finance their education. While Congress and the Texas Legislature have authorized even greater increases in grants, it is common to find appropriations failing to meet the higher authorization levels.

Responding to the perception that students confused loans with grants, conferees strongly recommended that all student loan participants stress to students the very real differences. This message was heard. In 1989 and 1992, the federal government required entrance and exit counseling and the provision of other consumer information for student borrowers. Schools, lenders, and TG have made great efforts to instruct students about the obligations that accompany their student loans.

Administrative Practices

Improving communications was the focus of the recommendations from the Administrative Practices interest session. The group recommended the development of entrance and exit counseling programs to communicate to the student the obligations that accompany the borrowing of a student loan. Regular contact with borrowers, especially during the grace period, was also suggested. The group called on guarantee agencies to provide more and better information to schools to help them participate in default prevention activities. Schools were urged to hire default prevention coordinators and refrain from using commissioned recruiters. Conferees recommended that schools be paid an administrative allowance for doing default prevention activities.

While schools never got an administrative allowance for default prevention activities, most of the other recommendations from this interest session are now either required by law or have become standard practice within the student loan industry. Entrance and exit counseling sessions are mandated and schools fulfill this function in a variety of ways, such as group and individual counseling sessions, videos, and interactive software. Due diligence requirements ensure that borrowers are con-

tacted while in grace and when their loan is sold. TG now provides schools and lenders with several reports which enable more active default prevention activities. Schools often have staff or contractors help them with this function.

Pre-loan Counseling, Packaging, Early Financial Planning

To minimize defaults, this session was interested in controlling the amount of loans students should borrow. They urged adjusting financial aid packages so that first- and second-year students would be more likely to have grants than loans, i.e. "front loading" grants. This group suggested prorating loan amounts based on academic progress, enrollment status, and career prospects. Recommendations were made to protect the lenders' investments by requiring credit checks, co-signers, and the purchase of a savings bond equal to the amount of the loan with the guarantee agency or federal government as the primary beneficiary.

Since 1988, a few of these proposals were adopted. Many schools try to front load grants to first- and second-year students. However, the lack of sufficient federal and state grant money makes this strategy challenging in Texas. Loan limits are now much more differentiated based on academic progress with first-year students eligible for much less in loans than upperclassmen. While this keeps indebtedness low for those most at risk of defaulting, it also puts significant financial barriers on schools to find grant money for students unable to borrow as much money as they need. Schools may soon gain additional authority to control borrowing amounts. Both the U.S. Senate and House reauthorization bills now under consideration would grant financial aid administrators more authority to use professional judgment to limit the amount that some students can borrow. However, Congress has yet to approve credit checks (except for PLUS borrowers), co-signers, and the purchase of savings bonds by students. These were viewed as being in conflict with the equal education access goals of the program.

State and National Legislative Initiative

Many of the proposals from the State and National Legislative Initiative session were designed to limit borrowing by high-risk students, especially unproven first-year students who drop out soon after enrolling. The focus seemed to be directed primarily at proprietary schools as the conferees requested different guidelines for different types of schools. There were also recommendations to alter the formula for calculating default rates to account for schools with students from less affluent families and to give credit for student payments made after default. State directed proposals called for measures to increase the incentives for repayment.

The federal government's response to the default issue of 1988 seemed in line with many of the conference recommendations. While Congress did not adopt proposals to front load grants in the first two years, it did identify the unproven, potential first-year dropouts as a group for which loans are inappropriate. Late disbursements, multiple disbursements, increased professional judgment and no increase in loan limits for first-year students are among the legislative efforts to minimize the amount of debt for high-risk students. The federal government has mostly resisted attempts to treat schools differently based on their school sector. Efforts to alter the cohort default rate formula have not been very successful, although schools may appeal their rates based on exceptional mitigating circumstances. The State of Texas passed several measures to bolster TG's ability to collect on loans. Blocks on professional and drivers' licenses and holding transcripts were among the items adopted in TG's "sunset" legislation in 1989.

Debt Management

The Debt Management session focused on instilling good repayment habits and raising students' awareness of their loan obligations. This group also recommended changes to minimize problems associated with multiple holders of loans.

Award notices now go to borrowers each academic year informing them of what aid they have received and what obligations they have incurred. One credit hour courses in debt management are not required as was proposed by this session nor are payments required while students are in school. However, more means of gaining information about the current status of one's loans are available. TG's Student Loan Inquiry makes current status and balance of loans available via the Internet and

TG's Customer Assistance staff works hotlines to answer questions from students. While multiple holder issues are still with us, loan consolidation is much more popular in 1998. The student loan industry has also been pushing ED to approve line of credit proposals and other modernization measures. Some lenders encourage good repayment habits by rewarding those who make consecutive payments with discounts on their interest charges. However, lenders may be limited in their ability to continue this practice if the amount of their subsidy is reduced as scheduled in current law.

Servicers - The Parties Involved, Keeping Everyone Informed

As with many of the sessions, communication was the key for this group. Several areas were identified as in need of improvement:

- Reporting out-of-school dates
- Notifying schools and borrowers when a loan is sold
- Responding quickly to requests for deferments
- Sending schools Request for Assistance (RFA) reports
- Communicating electronically
- Sharing data across state agencies
- Reducing miscommunication by requiring borrowers to use only one lender.

The process for reporting out-of-school information has been improved with the establishment of the NSLDS. The quality of the information has improved and updates are more frequent. Also the sellers and buyers of loans are now required to inform borrowers when their loans have been sold. Deferments are much easier to get with the nearly automatic check off option that relieves students of having to request specific forms to get deferments. Also, TG provides information on deferments to borrowers through the Internet and through Customer Assistance hotlines. RFA reports are routinely sent to schools. TG has made many reports and data available electronically through Tex-Net, the Internet, and other means. TG's sunset legislation in 1989 required state agencies to cooperate with TG and many routinely do. Licensing boards and state agencies, including the Texas Department of Motor Vehicles, share information with TG. TG's Project Merge encouraged keeping borrowers' loans with one lender, although the need to protect a student's choice in the selection of lenders has not been jeopardized.

Loan Servicing — The Process: Due Diligence, Student Status Deferments, and Skips

Not surprisingly, improving communication was seen by this session as critical to reducing defaults. This group recommended the exploration of new and creative ways to communicate with borrowers and other student loan partners. Borrowers, this group suggested, should have access to numerous avenues of information from guidebooks to student associations. This group urged lenders and guarantee agencies to use a more diversified set of letters in corresponding with borrowers and to make telephone contact more frequent. Interagency agreements should be developed, this group argued, including the creation of a statewide skip tracing agency, which would not only find delinquent borrowers, but could also locate parents late with their child support. The Loan Servicing session also sought ways to discourage delinquency such as publishing the names of defaulters in local papers and posting "most wanted" leaflets on campus with the names of students who have failed to fulfill their loan obligations.

With the growth of the Internet and electronic communications, schools, lenders, and TG have incorporated the new technologies into their communications strategies. Borrowers can access their loan information over the Internet through TG's Student Loan Inquiry feature. Forms can be downloaded from the World Wide Web and borrowers can receive e-mail reminders of key dates in the student aid process. Students can call hotlines to talk to customer assistance experts or they can still use a stamp and write their school, lender, or guarantee agency. The State of Texas did not create a skip tracing agency, but TG has numerous agreements with state agencies — including the Attorney General's Office and the State Comptroller's Office — which promote the sharing of information electronically. Although there has been some experimentation, lenders and TG are limited by the Fair Debt and Reporting Act in the ways in which they can contact borrowers.

A large percentage of the recommendations of the SDI conference have been adopted.[1] Many of these proposals have been quite effective in better informing the student, minimizing the risk of borrowing, improving communication among student loan participants and providing proper incentives for repayment of student loans. Other recommendations may have conflicted with other program goals such as equal access to higher education, procedural simplicity, and cost efficiency. The next section will document some of the key trends in student loans since the 1988 conference. As will become clear, many of the changes in law and administrative practice had a significant impact on patterns of student borrowing.

III. Historical Trends

The student loan industry has seen many changes in the ten years since the SDI conference. In many ways, 1988 was the depth of the default crisis. Through acts of Congress and the hard work of the student loan participants, default rates have dropped significantly since the conference. This section attempts to highlight some of the key trends in student borrowing in Texas. First, while there have been substantial increases in need-based grant aid, this growth has not kept up with the cost of college, forcing students to rely increasingly on loans to finance their educations. Second, borrowing by students attending proprietary schools soared during the late 1980s, but started to decline by 1989 and has continued to fall since then. This trend had a ripple effect on the student loan program in Texas contributing to high default rates during peak loan volume years and reducing overall default rates as proprietary school volume declined. Third, while default rates have dropped since 1990, the pace of this decline differs by school type. Fourth, default claims have leveled off after a steep increase in the late 1980s and early 1990s. Another key trend is discussed in detail in a companion report, *Education on the Installment Plan: The Rise in Student Loan Indebtedness in Texas.*

Grant to Loan (Im)Balance

Many of the SDI conference participants identified the problem of funding equal access to higher education through loans rather than need-based grants. Students contemplating going to college must decide if the returns from higher education are worth the investment in time and money. On average and in aggregate, the investment in higher education pays off handsomely. A recent study by the economic analysis firm, Texas Perspectives, reported that students can expect to realize large profits by gaining a college degree, "[T]he net present value of the additional earnings from obtaining a college degree is just over $207,000."[2] However, the choice between going and not going to college involves some calculation of the probability of success and the cost of failure. Not all students will be equally successful. Some students will not earn up to this average and some may not even complete their courses of study. For students in need of financial assistance, the difference between a loan (with the harsh penalties associated with default) and a grant is significant. As students begin their educational careers, their prospects for success are unclear. Providing grants helps reduce this risk; loans can increase it. This difference is accentuated for students from low-income families or from families with no prior exposure to higher education. As a tool for equal education opportunity, grants are much more effective than loans.

Unfortunately, budgetary pressures have dominated student aid policy during the last ten years. The 1988 need-based grant-to-loan mix has not been maintained, resulting in a growing reliance on student loans. During the last eight fiscal years for which we have data (1988-89 to 1995-96), state need-based grants increased by roughly 100 percent and federal grants rose 40 percent. (See Table 1)

Table 1 Texas Need - Based Grants, State and Federal 1988-89 to 1995-96

	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
State								
TPEG	$25,648,298	$31,015,960	$32,078,731	$37,667,399	$46,644,353	$49,996,076	$56,926,932	$57,396,871
TEG	$18,550,000	$21,278,035	$21,278,590	$24,200,000	$24,200,000	$25,200,000	$25,164,600	$37,159,862
SSIG (TX)	$1,499,752	$1,498,435	$1,500,000	$1,451,600	$1,451,361	$1,452,000	$1,451,491	$1,425,305
Total	$45,698,050	$53,792,430	$54,857,321	$63,318,999	$72,295,714	$76,648,076	$83,543,023	$95,982,038
Federal								
Pell	$229,493,134	$319,363,463	$315,634,910	$356,067,422	$288,456,583	$276,725,581	$281,552,959	$310,871,796
SEOG	$14,960,605	$18,872,720	$18,633,171	$22,290,019	$24,546,344	$25,706,866	$32,906,863	$32,025,997
SSIG (Fed)	$3,986,239	$39,923,334	$3,227,719	$3,604,723	$3,948,303	$3,975,001	$3,962,902	$3,466,195
Total	$248,439,978	$378,159,517	$337,495,800	$381,962,164	$316,951,230	$306,407,448	$318,422,724	$346,363,988
Total State & Federal	$294,138,028	$431,951,947	$392,353,121	$445,281,163	$389,246,944	$383,055,524	$401,965,747	$442,346,026

Source: Texas Higher Education Coordinating Board
TPEG = Texas Public Education Grant
SSIG (TX) = State Student Incentive Grant, Texas' matching share
SEOG = Federal Supplemental Educational Opportunity Grant
TEG = Tuition Equalization Grant
Pell = Federal Pell Grant
SSIG (Fed) = State Student Incentive Grant, Federal matching share

However, loans have grown at even higher rates. From 1988-89 to 1995-96 the amount of state student loans to Texas students rose 72 percent, while federal student loans grew a whopping 252 percent. (See Table 2)

Table 2 Texas Need-Based Grants, Loans & Work Study; State and Federal 1988-89 to 1995-96

	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
State								
Need-Based Grants	$45,698,050	$53,792,430	$54,857,321	$63,318,999	$72,295,714	$76,648,076	$83,543,023	$95,982,038
Loans	$50,055,193	$82,569,794	$89,126,430	$84,682,793	$87,465,926	$94,473,181	$85,516,156	$63,308,928
Work-Study	$299,199	$3,198,936	$3,401,684	$3,397,717	$3,454,973	$3,295,594	$3,301,771	$3,236,314
Total	$96,052,442	$139,561,160	$147,385,435	$151,399,509	$163,216,613	$174,416,851	$172,360,950	$162,527,280
Federal								
Need-Based Grants	$248,439,978	$378,159,517	$337,495,800	$381,962,164	$316,951,230	$306,407,448	$318,422,724	$346,363,988
Loans	$585,541,074	$478,753,733	$727,133,304	$706,332,682	$878,578,518	$1,130,906,201	$1,318,108,847	$1,539,386,593
Work-Study	$29,348,254	$31,953,097	$33,356,124	$40,887,545	$38,876,409	$34,318,634	$40,259,446	$37,427,623
Total	$863,329,306	$888,866,347	$1,097,985,228	$1,129,182,391	$1,234,406,157	$1,471,632,283	$1,676,791,017	$1,923,178,204
State & Federal								
Need-Based Grants	$294,138,028	$431,951,947	$392,353,121	$445,281,163	$389,246,944	$383,055,524	$401,965,747	$442,346,026
Loans	$635,596,267	$561,323,527	$816,259,734	$791,015,475	$966,044,444	$1,225,379,382	$1,403,625,003	$1,602,695,521
Work-Study	$29,647,453	$35,152,033	$36,757,808	$44,285,262	$42,331,382	$37,614,228	$43,561,217	$40,663,937
Total	$959,381,748	$1,028,427,507	$1,245,370,663	$1,280,581,900	$1,397,622,770	$1,646,049,134	$1,849,151,967	$2,085,705,484

Source: Texas Higher Education Coordinating Board & US Dept. of Education
Programs include:
Texas Public Education Grant
Tuition Equalization Grant
State Student Incentive Grant, Texas' matching share
Federal Pell Grant
Federal College Work-Study
Federal Supplemental Educational Opportunity Grant
State Student Incentive Grant, Federal matching share
Hinson-Hazelwood Loans
Texas College Work Study Program
Line Item Appropriations for Work Study
Federal Family Education Loan Program
Federal Direct Loan Program
Federal Perkins Loan Program

In 1988-89, the mix between need-based grants, student loans and work-study was 31 percent, 66 percent and 3 percent respectively. By 1995-96, this mix had changed to 21 percent of aid through need-based grants, 77 percent in student loans, and 2 percent by way of work-study. (See Table 3)

Table 3 Texas Need - Based Grants, Loans, & Work-Study; State and Federal, 1988-89 to 1995-96 By Percentage

	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
State								
Need-Based Grants	48%	39%	37%	42%	44%	44%	48%	59%
Loans	52%	59%	60%	56%	54%	54%	50%	39%
Work-Study	0%	2%	2%	2%	2%	2%	2%	2%
Total	100%	100%	100%	100%	100%	100%	100%	100%
Federal								
Need-Based Grants	29%	43%	31%	34%	26%	21%	19%	18%
Loans	68%	54%	66%	63%	71%	77%	79%	80%
Work-Study	3%	4%	3%	4%	3%	2%	2%	2%
Total	100%	100%	100%	100%	100%	100%	100%	100%
State & Federal								
Need-Based Grants	31%	42%	32%	35%	28%	23%	22%	21%
Loans	66%	55%	66%	62%	69%	74%	76%	77%
Work-Study	3%	3%	3%	3%	3%	2%	2%	2%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: Texas Higher Education Coordinating Board & US Dept. of Education

Programs include:

Texas Public Education Grant
Tuition Equalization Grant
State Student Incentive Grant, Texas' matching share
Federal Pell Grant
Federal College Work-Study
Federal Supplemental Educational Opportunity Grant
State Student Incentive Grant, Federal matching share
Hinson-Hazelwood Loans
Texas College Work Study Program
Line Item Appropriations for Work Study
Federal Family Education Loan Program
Federal Direct Loan Program
Federal Perkins Loan Program

Public policymakers have sent the message to students that if they want to go to college they will have to take a significant gamble by paying higher tuition and fees for college and financing this through large loans. It is a testament to Congress and the student aid community that despite this growing imbalance default rates have declined.

Portfolio Mix: The Rise and Fall of Proprietary School Borrowing

TG guaranteed its first loan in 1981. Since that time, there have been countless changes to the program rules and regulations. Borrower eligibility has expanded and contracted and expanded again. Need analysis has gone through numerous alterations. Loan limits have risen, especially for upperclassmen and graduate/professional students. Congress has abolished some loan programs and created others. All of these changes have had some impact on TG loan volume and portfolio mix.

During TG's first year, the portfolio mix by school sector was actually quite similar to the mix today.

Table 4 TG Portfolio Mix by School Sector

	FY 1981	FY 1997
Four-Year Public	59%	62%
Four-Year Private	30%	24%
Two-Year	7%	8%
Proprietary	4%	6%
Other	1%	0%
Total	100%	100%

However, between these years there were considerable fluctuations. Perhaps the most significant trend was the rise and fall in borrowing at proprietary schools. From FY 1983 to FY 1986, TG proprietary school volume grew 938 percent. Volume then rose 80 percent more in the next year and an additional 172 percent between FY 1987 to FY 1989. A school sector with a volume of $15 million in FY 1983 grew to $423 million in 1989 — just 6 years later.

Table 5 TG Proprietary Volume and Percent of Total 1983-1989

	Guaranteed $	% of TG's Portfolio
FY 1983	$ 15 million	7%
FY 1984	$ 47 million	15%
FY 1985	$ 79 million	21%
FY 1986	$137 million	29%
FY 1987	$245 million	40%
FY 1988	$349 million	43%
FY 1989	$423 million	46%

Slowly, news spread of unscrupulous business practices at some proprietary schools. Students from these schools began defaulting at rates much higher than students from other school sectors. It soon became clear that the phenomenal growth in proprietary school loan volume was also causing a default crisis.

Proprietary schools are different from traditional colleges and universities. They offer short-term career training on a for-profit basis. Proprietary schools aggressively advertise and recruit. Especially in the mid- and late-1980s, these schools served students primarily from low-income families, many of whom had dropped out of high school and lived in economically disadvantaged areas. These were precisely the types of people that were not in the education pipeline that led to a four-year university degree. Advocates for proprietary schools boasted of the successes schools had with this disadvantaged population, turning the down and out into productive employees and taxpaying citizens. High default rates were defended as the price to be paid for training this high-risk, under-served group. Critics, however, argued that many — but not all — proprietary schools actually had a negative impact on the lives of their students and that the federal and state governments should protect the student consumer from fraudulent schools.

TG was among the most vocal critics of proprietary schools. In *School or Scandal?* former TG Executive Director, Joe McCormick, identified unscrupulous business practices by proprietary schools[3]. By making false promises, providing inadequate instruction, and training students for jobs for which the expected salaries were insufficient to repay their loans, critics claimed that these schools hoodwinked students out of their money and left them with bad credit. Largely to combat growing default rates and to better protect students, the federal government increased oversight of all schools. Since the federal government's primary tool of oversight was sanctions against schools with high default rates, the effect on proprietary schools was most pronounced. Cohort default rate restrictions and tighter oversight by guarantee agencies effectively drove out the schools with the highest default rates and most problems. Proprietary schools that retained their eligibility were either already operating effectively or had corrected their administrative practices. Many schools also quit operating in inner-city neighborhoods raising concerns of decreased educational opportunity in these areas.

The largest guarantee agency in the country, the Higher Education Assistance Foundation (HEAF), sent notice in 1988 that it was in the middle of a financial crisis due to its large proportion of loans to students attending proprietary schools. These students had defaulted on their loan obligations at alarming rates. HEAF pulled out of Texas in 1988 and would later become unable to back its guarantee to lenders. ED liquidated the assets of HEAF and assumed financial responsibility for its liabilities. HEAF's substantial proprietary school volume in Texas largely switched to the designated state guarantor. This influx of proprietary school loans sent TG into a financial downward spiral similar to the one that ruined HEAF. In FY 1990 and FY 1991, TG hit the second default reinsurance trigger rate forcing the corporation to be reimbursed at a rate of 80 cents on the dollar for a portion of its default claims. Fortunately, TG managed its way through this difficult time with the help of Congress, ED, and the student aid community in Texas and now maintains a more balanced portfolio of loans.

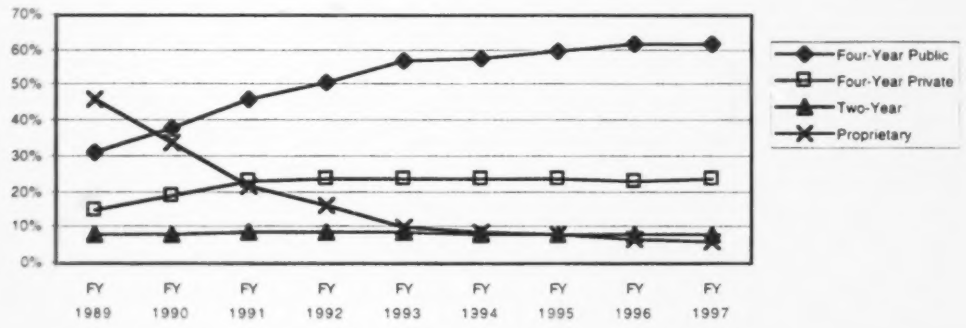
Proprietary school volume with TG peaked in FY 1989. During that year, proprietary school students accounted for 46 percent of all loans guaranteed by TG — 15 percentage points higher than for all students attending four-year public schools. Increased oversight and loss of market share within this sector had lowered TG proprietary school volume by 37 percent in FY 1990. By FY 1993, proprietary school volume had dropped to $85 million and accounted for only 10 percent of TG's volume. As of FY 1997, proprietary school volume was at $79 million — just 6 percent of TG's total loan volume.

Table 6 TG Proprietary Volume and Percent of Total FY 1989-1997

	Guaranteed $	% of TG's Portfolio
FY 1989	$422.5 million	46%
FY 1990	$267.1 million	34%
FY 1991	$157.6 million	22%
FY 1992	$109.7 million	16%
FY 1993	$ 85.3 million	10%
FY 1994	$ 98.2 million	9%
FY 1995	$ 94.4 million	8%
FY 1996	$ 88.6 million	7%
FY 1997	$ 79.1 million	6%

With the decline in proprietary school borrowing, TG's portfolio mix became more weighted towards the four-year school sector. This shift has been relatively steady since FY 1989.

Graph 1 TG Portfolio Mix by School Type FY 1989-97



Cohort Default Rates Rise with Proprietary School Borrowing and Subside with Default Prevention Measures

The official ED Cohort Default Rate came into being in 1987 when the Department of Education Secretary William J. Bennett publicized the formula in his attempt to crack down on schools associated with high defaults, which the Secretary announced by proclaiming, "It's accountability time."[4] The calculation was to provide a relatively quick look at default behavior. Research at that point suggested that most defaults occurred shortly after students left school and exhausted their grace period.[5]

Schools were not pleased with the punitive use of these rates; they were unaccustomed to being held responsible for an obligation a student made with a private lender. The Cohort Default Rate — and the sanctions based on these rates — forced schools to be more accountable for the outcomes of their students.

The Cohort Default Rate became the standard calculation for assessing default experience. TG has applied this formula to prior years to allow for a wider historical perspective. As Table 7 shows, TG's Cohort Default Rate peaked in FY 1990 at 33.6 percent and has declined each year since.

Table 7 TG Overall Cohort Default Rate FY 1983 to 1995

	Cohort Default Rate
FY 1983	8.0 %
FY 1984	11.4 %
FY 1985	20.0 %
FY 1986	20.7 %
FY 1987	21.7 %
FY 1988	17.7 %
FY 1989	24.0 %
FY 1990	33.6 %
FY 1991	26.3 %
FY 1992	18.5 %
FY 1993	17.5 %
FY 1994	15.1 %
FY 1995	14.0 %

Default rates vary greatly by school type. Four-year private schools typically have the lowest default rates and proprietary schools often have the highest rate of any school sector. These school sectors draw on very different student populations. On average, the most affluent and academically successful students typically attend four-year private schools, while the most economically and academically disadvantaged students usually attend proprietary schools. In addition to the difference in duration, the four-year private school sector has lower dropout rates than the proprietary school sector. Four-year public schools behave similarly to four-year private schools, while two-year schools more closely resemble proprietary schools in the population served and in the shorter duration of the educational program.

The Cohort Default Rates for four-year public and private schools have remained remarkably consistent over the years. The slight increases in FY 1990 were followed by gradual declines. This suggested that many of the default prevention measures recommended by Strategic Default Initiative participants and adopted by Congress had moderate positive effects on students attending the long-term programs. The highest default rate for two-year schools also occurred in FY 1990; however, this sector did not decline in subsequent years as notably as four-year schools.

Proprietary schools showed the greatest change in default rates. Within this school sector, default prevention measures — especially Limitation, Suspension, and Termination provisions based on Cohort Default Rates — had an enormous effect. In FY 1990, the Cohort Default Rate at proprietary schools was 48.3 percent. Within two years this rate had dropped to 30 percent and in FY 1995 had fallen to 23.8 percent. The schools with the highest default rates were forced out of the program and those that remained usually altered their way of business (and sometimes instruction) to lower their rate in order to retain eligibility for federal Title IV student aid money.

Table 8 TG Cohort Default Rates FY 1983-1995 by School Sector

	Four-year Public	Four-year Private	Two-year	Proprietary	Overall
FY 1983	4.1 %	4.5 %	14.5 %	22.9 %	8.0%
FY 1984	6.5 %	6.0 %	19.6 %	29.1 %	11.4 %
FY 1985	10.5 %	8.5 %	25.3 %	42.3 %	20.0 %
FY 1986	12.9 %	9.7 %	27.2 %	33.0 %	20.7 %
FY 1987	12.5 %	9.0 %	25.1 %	31.8 %	21.7 %
FY 1988	12.0 %	9.3 %	22.0 %	21.0 %	17.7 %
FY 1989	11.5 %	8.1 %	19.4 %	32.9 %	24.0 %
FY 1990	14.0 %	9.6 %	23.7 %	48.3 %	33.6 %
FY 1991	11.7 %	8.1 %	20.3 %	41.9 %	26.3 %
FY 1992	11.9 %	8.4 %	19.6 %	30.0 %	18.5 %
FY 1993	12.6 %	9.9 %	20.5 %	28.4 %	17.5 %
FY 1994	11.4 %	8.9 %	19.0 %	25.9 %	15.1 %
FY 1995	10.7 %	8.7 %	18.6 %	23.8 %	14.0 %

There is concern about the adverse effects of increased borrowing following the 1992 liberalization of aid eligibility through changes in need analysis, expansion of loan limits (excluding first year students) and the creation of the Stafford Unsubsidized Loan Program. However, increased borrowing appears to have had little impact on Cohort Default Rates thus far. As Section IV will show, holding all other variables constant, incremental increases in debt load increases the chance for default.

Default Claims

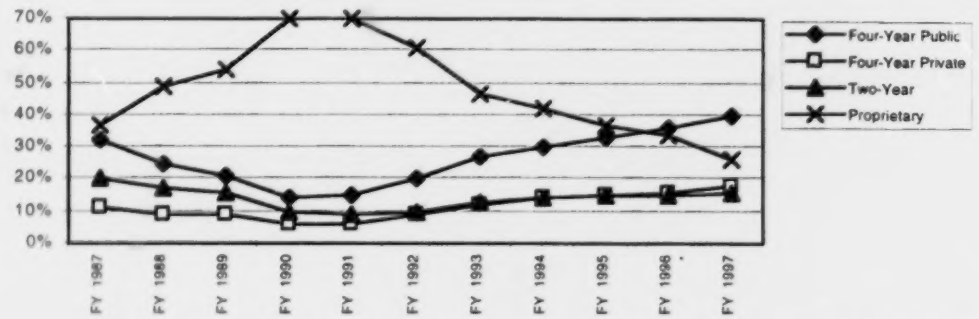
TG is a relatively young guarantee agency. TG guaranteed its first loan in FY 1981. Just like the current newcomer to student loans, direct lending, TG's early years were focused on the front end of the process — making sure that students got their education loans. The back end of the process — paying claims and collecting on defaulted loans — grew in significance for the corporation. The negative effects of the growth in proprietary school borrowing lagged about one to two years from the time of guarantee. In the year prior to the SDI conference (1987), TG default claims were at $45 million. In two years this amount would more than double. By 1991 — two years after the peak in proprietary school borrowing — default claims ballooned to $230 million, the highest total in the corporation's history. Since then, annual default claims have leveled off despite tremendous growth in guarantee volume. This leveling off is a result of a portfolio that is weighted increasingly towards less risky loans.

Table 9 TG Default Claims Paid; FY 1987-91

	Number of Claims	Amount of Claims
FY 1987	17,512	$ 45 million
FY 1988	24,861	$ 61 million
FY 1989	35,573	$ 93 million
FY 1990	65,633	$169 million
FY 1991	88,439	$230 million
FY 1992	73,820	$199 million
FY 1993	49,727	$141 million
FY 1994	61,878	$192 million
FY 1995	53,995	$172 million
FY 1996	64,879	$221 million
FY 1997	61,448	$225 million

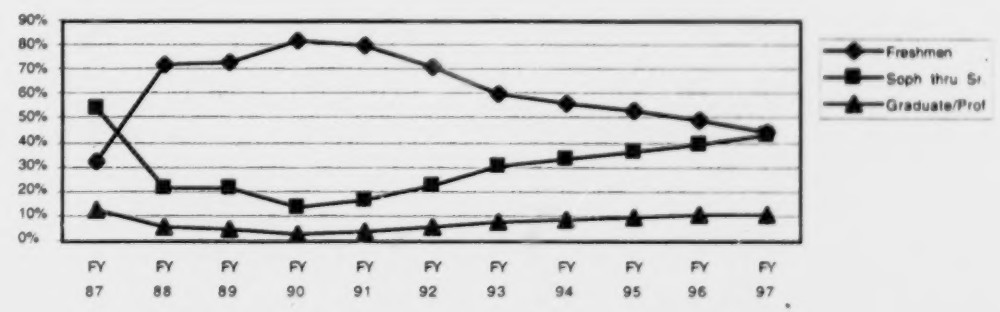
Graph 2 shows TG's default claims paid by the type of school attended by the borrower. This table illustrates the impact of proprietary school borrowing. In FY 1990, seven out of ten default claims paid were for students who attended proprietary schools. As proprietary school borrowing receded, so too did their percent share of default claims paid. Although proprietary school students still account for a disproportionate amount of default claims (relative to their percent of loan volume), now it is more common for a typical TG defaulter to have attended a four-year public school than a proprietary school. This change represents a major shift in perspective from when the SDI participants gathered in 1988.

Graph 2 TG Default Claims Paid By School Type FY 1987-97



TG has also looked at default claims paid by the highest grade level attained. The peak of proprietary school borrowing is reflected in the higher percentage of borrowers whose highest grade was only the first year of college. In FY 1990, 83 percent of all default claims were paid for first-year students. The proportion of all default claims paid for first year students has been decreasing since FY 1990 as a larger share of borrowing has occurred at four-year schools. Nonetheless, graph 3 shows that most default claims paid are for students who attended school for only one year either as proprietary school students or dropouts in longer-term programs.

Graph 3 Percent Default Claims Paid by Grade Level



While many of the issues raised at the 1988 SDI conference remain with us, the climate has changed somewhat. Default rates have declined. Schools with the highest rates have left the program, and the press is no longer saturated with stories of abuses by unscrupulous schools. Default prevention measures have been largely successful. However, the growing debt burdens of students causes concern both as a strategy to promote equal access to higher education and as a warning of potential default problems in the years to come. The profile of a typical defaulter is evolving. Section IV explores the characteristics of defaulters and explains an econometric model to identify those students most at risk of defaulting.

IV. Predicting which Borrowers are Most Likely to Default

Introduction

Students who obtain loans for post-secondary education do so because they have a need. Typically, they have few alternative financial resources with which to pay for their education. Loans provide a means of obtaining skills and knowledge that will enable students to earn higher salaries, which in turn will allow them to repay their loans. However, the transition from school to work is often a confusing, difficult time for borrowers, especially for those who have many life stresses (e.g. divorce, loss of job, large medical expenses, etc.). If TG can identify risky borrowers early, then preemptive prevention activities may be more successful. That is the purpose of this section: to develop an econometric model to predict which borrowers are most likely to default.

Finding the reasons for student loan defaults is no simple task. For example, it is generally known that borrowers attending four-year schools default infrequently. Many of these borrowers accumulate large levels of debt over their academic careers. Based on this limited information, one might conclude that high levels of debt are associated with low rates of default. However, statistically accounting for other factors, the opposite conclusion is correct, i.e. high levels of debt are associated with high default rates.

The objective of this section is to discuss how a logistic regression model can form a statistical picture of past borrowers using information in TG's data files. The model is then applied to students who currently enter repayment. The model assigns the likelihood or probability of a borrower going into default.

Literature Review

Student loan defaults have been with us since the inception of the guaranteed student loan program in the 1960s. Despite this, only a small number of studies in the past 10 years have used multivariate techniques to examine characteristics of student defaults.

Researchers who study student loan defaulters frequently identify two categories of characteristics contributing to student loan defaults: institutional and individual. Though institutional characteristics are often viewed as less important than individual characteristics when assessing why student loan default occurs, the body of research indicates that some institutional characteristics contribute to student loan default rates. Of these, type of institution receives the most attention in the literature. In 1997, the General Accounting Office (GAO) conducted two separate studies looking at student loan defaults in 1) historically black colleges[6] and 2) proprietary schools.[7] Furthermore, in Wilms, Moore and Bolus' research, the only institutional characteristic showing a positive relationship to student loan default is if a student attended a proprietary school type.[8]

Volkwein and Szèlest's national database analysis (NPSAS, IPEDS, and the College Board Survey) show associations between institutional characteristics, other than school type, and default rates.[9] The most important associations are 1) the higher the degree offered, the lower the default rate; 2) the smaller the school, the higher the default rate; 3) the higher the rate of the school's admission acceptances the greater the default rate; 4) in general, the less wealth of an institution, the higher the default rate; and 5) the larger the student to faculty ratio, the greater the default rate.[10] In the big picture, a school's default rate is probably influenced by a number of institutional traits rather than one particular trait.

Studies have also found that student characteristics are related to default. Wilms, Moore, and Bolus conclude that student characteristics have a greater influence on default rates than do institutional characteristics.[11] A more recent study conducted by Volkwein and Szelest strongly supports these findings.[12] Perhaps one of the most studied and widely accepted student characteristics which predict an individual's default is whether or not the student graduates. Greene found a strong negative relationship between students who graduate and default.[13] Thus, students who default tend to be those students who withdraw prior to graduation. In a later study, Knapp and Seaks examine two-year and four-year private schools and also find that graduation reduces default.[14]

Another student characteristic often associated with loan default is the race or ethnic origin of the borrower. Depending upon the study, the methodology, and sample size of the study, race/ethnicity may or may not be associated with student loan defaults. For example, Wilms, Moore and Bolus examined student characteristics at community colleges and proprietary schools using a discriminate analysis model.[15] In this study, the second most important factor out of six factors in predicting student loan default was race, specifically African American. In contrast, two years later Greene's study, which uses a Tobit regression model, found race, specifically whether a borrower was African-American, to be statistically insignificant in identifying student characteristics of defaulters.[16] Additionally, Volkwein et al. found that racial/ethnic minority groups default no more than non-minority groups when grouped into categories based on degree earned, marital status, and presence of dependent children.[17]

Earned credit hours, or grade level, is another student characteristic influencing the predictability of default.[18] Gray's logistic regression model indicated that the number of credit hours a student earns while in college is one of six factors predicting repayment behavior. Essentially, the more hours a student earns (a proxy for grade level), the less likely that a student loan default will occur.

Another student characteristic identified with student loan default rates is the amount of financial support, typically from parents, that a student receives. Some studies, like Volkwein and Szelest and Knapp and Seaks, have found a negative relationship between financial support from parents and/or family and student loan default. The less financial support, the greater the likelihood of default.[19] Additionally, Wilms, Moore, and Bolus have found the greater the average annual family income "the more likely the student borrower will repay."[20]

All of the institutional and individual characteristics discussed are used in the upcoming model presented in this paper. These characteristics repeatedly have shown to be some of the most important factors that either forecast, associate, or correlate with student loan defaults.

Model Development

The objective of model development is to identify likely future defaulters. Using TG's past data files, a model was developed around the historical relationships between borrower characteristics and the incidence of default. The resulting model can then be applied to borrowers who are currently entering repayment in order to predict likely defaulters who should be the target of preemptive default prevention efforts.

The model develops statistical estimates based upon a cohort of borrowers who entered repayment during one 18-month period during FY 1990-91 (See figure 1). The model tests the relationships between student and institutional characteristics and whether borrowers default within 6 1/2 years of entering repayment. An October 1991 database provided all of the borrower information, with the exception of enrollment status, which was derived from a later database.

Why was the 6 1/2 year duration for the default window chosen? A choice of FY 1990-91 uses a time period that is relevant to current default behavior. In addition, allowing a minimum of 6 years for default provides time for borrowers to enter and progress well into their repayment period. (A typical repayment period is 10 years.) A further discussion of model development choices occurs in Appendix B.

Literature on defaults and experience at TG suggest possible student characteristics, shown in Table 10, that might be related to defaults. However, some of these characteristics were not built into the model due to the lack of data.

Table 10 Student Characteristics that Might Predict Default

- Types of Loan Programs Used by Borrowers
- Age of Borrower
- Grade Level of Borrower
- GPA of Borrower
- Type of School
- Whether Borrower has Multiple Lenders
- Amount of Student Loan Debt
- Consolidation Loan Only
- Enrollment Status at Repayment Date
- Whether or Not Borrower Had Job after Graduation
- Median Family Income of Borrower's Area of Residence
- Race or Ethnicity
- Consolidation Loan
- Debt Level
- Loan Currently Deferred
- Loan Currently in Forbearance
- The Region of Texas in which the Borrower Lives
- Whether Borrower Lives Outside of Texas
- Address from Urban or Rural Area
- Cost of Education
- Amount of Non-FFELP Financial Aid
- Expected Family Contribution
- Marital Status
- Number of Dependents

The factors described in Table 10 were operationalized using TG and Census Bureau data. The model describes default behavior for borrowers of Stafford, SLS, and PLUS loans and excludes consolidation loans, since the main TG guarantee database for FY 1991 did not include them. Table 11 displays the variables used in the model.

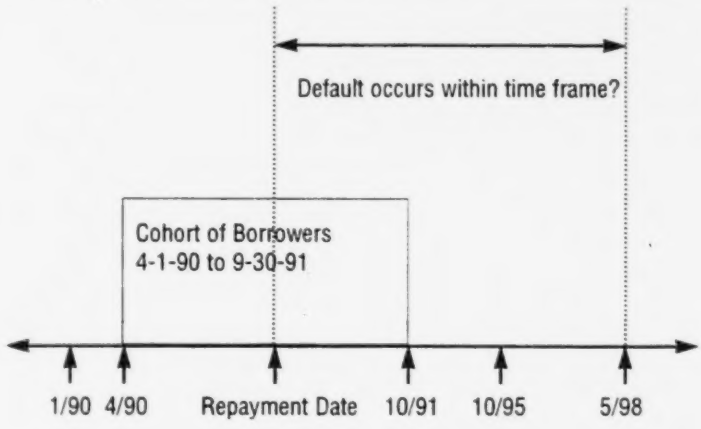
Table 11 Variables Used in Default Model

Independent Variables	Description
Institution type:	
Proprietary Business	Business proprietary school
Proprietary Cosmetology	Cosmetology proprietary school
Proprietary Trade	Trade proprietary school
2-Yr Public College	2-year public college
2-Yr Private College	2-year private college
4-Yr Public College	4-year private college
(Reference: 4-Yr Public College)	
1988 Cohort Default Rate	1988 Cohort Default Rate published by the Education Department
Estimated Cost of Education:	
$4,000 - $7,000	Estimated Cost of Education based on calculation by school
$7,000 - $10,000	
$10,000 - $14,000	
Over $14,000	
(Reference: $0 - 4,000)	
Type of loan:	
Unsubsidized only	Type of loans that the student possesses
PLUS only	
Mix of loans	
(Reference: Subsidized Stafford only)	
Grade level	Grade level at time of most recent guarantee

1990 household income (in 1,000s) in ZIP code	Median family income in 1989 from 1990 Census of Population and Housing
1990 percent Afro-American in ZIP code (in 10s)	1989 percentage of persons who are Black in ZIP Code from 1990 Census of Population and Housing
1990 percent Hispanic in ZIP code (in 10s)	1989 percentage of persons who are of Hispanic origin in ZIP Code from 1990 Census of Population and Housing
Estimated Family Contribution (in $1,000s)	Amount a student and his or her family are expected to pay for education expenses determined by the financial information provided on FAFSA
Multiple originating lender	The borrower has loans from more than one originating lender
Deferment during Oct. 1991	The borrower's loan has a deferment as of 10/91
Age of borrower at time of repayment (in 10s)	Age of borrower at time of repayment
Debt:	
2-Yr College or Proprietary (in $1,000s)	Total net debt of 2-year students
4-Yr College (in $1,000s)	Total net debt of 4-year students
Financial Aid:	
$500 - $1,000 $1,000 - $3,000 $3,000 - $5,000 Over $5,000 (Reference: Less than $500)	Estimated financial assistance including scholarships, grants, financial need-based employment income, and loans
Enrollment Status:	
Withdrawn Graduated (Reference: Other statuses)	Enrollment status as of 10/95 Reference category includes: Leave of Absence, Deceased, Full-Time, Half-Time, Less than Half-Time, Never Attended, No Record Found, or Not Available
Region:	
High Plains Northwest Texas Metroplex Upper East Texas Southeast Texas Gulf Coast South Texas West Texas Upper Rio Grande Outside of Texas (Reference: Central Texas)	Uniform State Services Regions from the Texas Comptroller of Public Accounts (See Appendix C) Borrower from outside of Texas.

Figure 1 represents the time line for the model. The model tracks all borrowers who entered repayment between April 1, 1990, and September 30, 1991. The model identifies a borrower as defaulted if TG had paid a default claim by May 1998.

Figure 1 Time Line of Model



(Measurements occur 10/91 and 10/95)

Since the TG data files do not contain the race/ethnicity and income-levels of borrowers, the 1990 census provided proxies for this information. Because these variables represent approximations, the model will not be able to absolutely discern the true relationship to default of race/ethnicity and income level. Despite this imprecision, relevant relationships were found.

Through modeling we can test for the relationships between financing an education and defaulting. For example, financial aid packages are typically associated with a student's need. If need-based aid dominates these packages, it might make sense that students with real need would correlate with more defaults because they have fewer financial resources and a relatively higher sticker price with which to contend. Another factor, educational cost, proxies the quality of obtained marketable skills (at least according to human capital theory[21]). If the cost of education is sometimes a measure for quality, then students attending relatively higher priced schools might default less.

The model also examines two factors — deferment and forbearance — that delay or push defaults beyond the approximate 6 1/2 year window between the repayment date and May 1998. Whether or not borrowers had forbearance could not be examined because data were not attainable.

Prediction Model Results

Table 12 presents the results of the model. The model correctly predicted whether or not borrowers default about 76 percent of the time. The model correctly predicted 73 percent of borrowers who default and 79 percent of borrowers who did not default.

One result taken from this model is its ability to assign each borrower a probability. For example, a borrower who is assigned a '0.75' will have a seventy-five percent chance of defaulting. The model might be used to assign a probability of default to a borrower entering repayment in FY 1998. How well this model predicts whether or not a borrower will default depends on the similarity of the default patterns between the past cohort from which this model is based and the cohort in FY 1998. However, since the patterns of borrower characteristics demonstrate considerable stability from year to year, we can conclude that these cohorts are similar and that the model will predict the incidence of default with accuracy.

Table 12 presents a way of comparing the effectiveness of predictors of default. Standardized coefficients allow researchers to compare the effects of different variables on a common scale. The numbers presented in this table represent the magnitude and direction of the influence of each of these factors on the probability of default. The factors with the highest standardized coefficients are — whether a borrower withdraws from school and the grade level at which a borrower last took a loan. Graduation is also a strong predictor of increased default, in comparison to borrowers who later reenroll or pursue other educational goals. It is expected that borrowers who graduate would have a higher probability of default than borrowers who return to school since the latter group will not default if they receive deferments while they are in school.

Table 12 Most Effective Predictors by Standardized Coefficient

	Variable	Effect on Default	Relative Magnitude of Factor after Standardization[22]
1.	Student withdraws early from school (compared to students who returned half or full-time)	Increase	.48
2.	Progression in grade level	Decrease	.31
3.	Graduated (compared to students who returned half or full-time)	Increase	.29
4.	Proprietary trade school	Increase	.27
5.	Student only has PLUS loans	Decrease	.22
6.	Proprietary business school	Increase	.21
7.	Debt level for 4-year schools	Increase	.16
8.	Percent share of Afro-Americans in ZIP code tract	Increase	.16
9.	School's prior (1988) ED Cohort Default Rate	Increase	.15
10.	Mix of loans (compared to Subsidized Stafford only)	Decrease	.15
11.	Higher Expected Family Contribution	Decrease	.13
12.	Medium to high financial aid ($3,000-$5,000) compared to low	Increase	.13
13.	Less than half-time (compared to students who returned half or full-time)	Decrease	.11
14.	Proprietary cosmetology school	Increase	.12
15.	Medium to low financial aid ($1,000 - $3,000) compared to low	Increase	.11

Borrower Characteristics

Logistic regression demonstrates the effect of each characteristic on default. Table 13 displays the change in probability that each of these characteristics has on defaults.

Table 13 1991 Default Model for Stafford and PLUS Loans

Independent Variable	1991 Model Coefficients	Odds in relation to Reference	Change in Probability Percentage Points
Institution type:			
Proprietary Business	.991***	2.7 to 1	24
Proprietary Cosmetology	1.04***	2.8 to 1	25
Proprietary Trade	1.09***	3.0 to 1	26
2-Yr Public College	.158***	1.2 to 1	4
2-Yr Private College	.165		
4-Yr Private College	.059*	1.1 to 1	1
1988 Cohort Default Rate (in 5s)	.096***	1.1 to 1	2
Average Student's Cost of Attendance (COA)			
$4,000 - $7,000	-.100***	1 to 1.1	-2
$7,000 - $10,000	-.228***	1 to 1.2	-6
$10,000 - $14,000	-.385***	1 to 1.3	-9
Over $14,000	-.398***	1 to 1.3	-9
(Reference: Less than $4,000)			
Type of Loan:			
SLS only	-.227***	1 to 1.2	-5
PLUS only	-1.42***	1 to 5	-28
Mix of loans	-1.01***	1 to 2.5	-22
(Reference: Subsidized Stafford only)			
Grade level progression	-.315***	1 to 1.4	-8
1990 household income (in $1,000s) in ZIP code	-.0029		
1990 Percent Afro-American in ZIP code (in 10s)	.137***	1.1 to 1	3
1990 Percent Hispanic in ZIP code (in 10s)	.125***	1.1 to 1	3
Average Estimated Family Contribution (in $1,000s)	-.152***	1 to 1.1	-4
Multiple originating lender	-.013		
(Reference: One originating lender)			
Deferment during Nov. 1991	-.106***	1 to 1.1	-3
(Reference: Not Deferred)			
Age of borrower at time of repayment (in 10s)	.056***	1 to 1	1

Debt:			
2-Yr College or Proprietary (in $ 1,000s)	.040***	1 to 1	1
4-Yr College (in $1,000s)	.057***	1.1 to 1	1
Average Estimated Financial Assistance			
$500 - $1,000	.128***	1.1to 1	3
$1,000 - $3,000	.400***	1.5 to 1	10
$3,000 - $5,000	.689***	2.0 to 1	17
Over $5,000	.683***	2.0 to 1	17
(Reference: Less than $500)			
Enrollment Status:			
Withdrawn	1.74***	5.7 to 1	38
Graduated	1.08***	3 to 1	26
Less than half-time	-.63***	1 to 2	-15
Other statuses	.96***	2.6 to 1	23
(Reference: Return to school full or half-time)			
Region:			
High Plains	.008		
Northwest Texas	.156***	1.1 to 1	4
Metroplex	.154***	1.1 to 1	4
Upper East Texas	.245***	1.3 to 1	6
Southeast Texas	-.051		
Gulf Coast	.280***	1.3 to 1	7
South Texas	.016		
West Texas	.352***	1.4 to 1	9
Upper Rio Grande	-.255***	1 to 1.2	-6
Outside of Texas	-.077*	1 to 1.1	-2
(Reference: Central Texas)			
Intercept	-2.32***		
Average Default Rate	44.6%		

*** - Significant at .1% level
** - Significant at 1% level
* - Significant at 5% level

Withdrawing, Grade Level, and Graduation

As Table 13 shows, borrowers who withdraw are much more likely to default than other borrowers, other factors held constant. Borrowers who withdraw from school are almost twice as likely to default in comparison to borrowers who graduate from school. Therefore, on average, borrowers will default less if they can be kept from withdrawing during their first two years of study regardless of whether they attend a two-year, four-year, or proprietary school.

The grade level at which a borrower last took a loan is also an important indicator of default. In particular, each one-unit increase in grade level reduces the default probability by eight percentage points. Borrowers who are unable to obtain their education goals — especially through their first year of school — are highly susceptible to default.

Additionally, borrowers who graduate are more likely to default than borrowers who return to school. In most cases, enrollment statuses of graduation, withdrawal, and less than half-time force borrowers into repayment and therefore expose them to the possibility of default. In contrast, those who return to school might obtain in-school deferments that delay or prevent default. In any case, perseverance in school is a substantial factor for preventing defaults whether or not students eventually graduate.

Institutional Traits

Borrowers who attend schools with past high default rates are more likely to default in the future as well. For each five percentage point increase in a school's 1988 ED cohort default rate, the borrower's probability of default increases by two percentage points. This result presents a mixed picture of the role of cohort rates in default prediction. This finding suggests that a past cohort rate is not entirely indicative of a future probability of default. Still, to the extent that the cohort rate indicates quality of education, this finding suggests the importance of borrowers knowing the cohort default rate of the institution before they enroll.

The type of school a borrower chooses is also crucial. Borrowers who attend proprietary schools have a default probability more than 24 percentage points higher than borrowers attending four-year colleges. However, since the time of the FY 1991 cohort — seven years ago — we know that many proprietary schools with high default rates have been closed. The remaining proprietary schools have lower default rates and proprietary schools are probably not as risky an option for students as they were in 1991.

The amount of debt a borrower accumulates while at a proprietary, two-year, and four-year school affects the likelihood of default. Each $1,000 of student debt raises the chance for default at two-year and proprietary schools by about one percentage point and at four-year schools by well over one percentage point, all other factors held constant. This finding does not mean that borrowers should attend low-cost schools as a strategy for reducing debt loads in order to decrease the probability of default. When schools are categorized into five cost groups — $0-$4,000, $4,000-$7,000, $7,000-$10,000, $10,000-$14,000, and over $14,000 — attendance at a more expensive school (over $10,000) actually lowers the probability for default by nine percentage points compared to the least expensive institution (under $4,000). Since school type is controlled, this suggests that a student's investment in a 'pricey' education brings some returns, one of which is a lower risk of default.

These two findings suggest that students might be receiving a better education at more expensive schools and that relatively high levels of borrowing might be justified for attendance at schools where the quality of education more than offsets the default risk associated with high borrower indebtedness. By the same token, high levels of debt represent a dangerous risk to borrowers who attend low quality schools, even if those institutions have low attendance costs. Therefore, at low cost schools, borrowers obviously still need to pursue strategies, such as working while in school or avoiding non-essential classes, that minimize debt and ease the school-to-work transition. Increased grant aid would also reduce the need to borrow and lower default rates.

Financial Aid Packages

Borrowers with high amounts of Estimated Financial Assistance (EFA) default at a higher rate than borrowers with relatively small assistance packages. This result coincides with the GAO report that found schools with a higher reliance on Title IV money were associated with higher student loan default rates[23] and with Greene who found grant and scholarship aid associated with higher student loan default rates.[24] In our model, the variable used is the financial aid determination made by financial aid offices, not necessarily the actual aid received by the student. Borrowers offered packages (work study, grants, scholarships, and other need-based loans) of more than $3,000 have default rates that are 17 percentage points higher than borrowers with packages below $1,000. Even though it is difficult to know the true relationship between the size of the financial aid package and default, this result suggests that higher amounts of financial aid packages mirror borrower need, since needy borrowers lack resources to pay for school and to later pay off their loans. However, further investigation is necessary to find the underlying reasons of the relationship between financial aid packages and default.

Race/Ethnicity of Borrower's Community

In contrast to some previous research on defaults, this study shows the connection between race/ethnicity and defaults to be relatively minor. The model establishes that for every 10 percent increase of the Hispanic or Afro-American share in the borrower's ZIP code area, default probability increases by about three percentage points. However, it is important to note that since we are using a proxy for race/ethnicity (the race/ethnic make-up of the borrower's ZIP code), the lack of precision might result in an under or over estimate of the true relationship between race/ethnicity and default.

Deferments

Our research provides strong evidence that the use of deferments is an effective way that borrowers can postpone a default claim, but these delaying strategies do not ultimately avoid default. For example, analysis of a 1995 cohort model with a 2 1/2 year default time frame found that borrowers with deferred loans defaulted one-third as often as borrowers without deferred loans. Thus, as expected, borrowers who obtain deferments are quite effective in reducing defaults soon after their repayment date. However, the 1991 cohort model with a 6 1/2 year timeframe indicates that borrowers with deferred loans defaulted almost as often as borrowers who never deferred. Thus, deferments almost disappeared as a factor when the timeframe for default increased.

Multiple Lenders

Borrowers in the 1995 cohort who had loans with more than one originating lender had about a 20 percent increase in the odds of default compared to borrowers with one lender. However, the association between defaulting and multiple lenders is diminished over a 6-1/2 year time frame in the 1991 cohort. Generally, the default problems associated with a borrower having more than one lender diminished after a long period (about 6 years) of repayment. Probably, borrowers' use of consolidation alleviates some problems with multiple lenders.

How We Can Use This Information to Identify the Most Likely Defaulters?

The information from this model can be used to rank the probability of default for borrowers in the TG data files. In order to identify borrowers with a consolidation loan, a consolidation loan model is also formulated for the computation of default probability. Figure 2 shows this process.

Figure 2 Method for Assigning Probabilities to New Borrowers

The model works as follows:

1. Take a group of borrowers who are entering repayment during a given month.
2. Use the appropriate model, depending upon loan type.
3. From these models, a list of borrowers is formed and ranked by probability for defaulting. Those at the top of the list would be the target of default prevention activities even prior to any reported delinquency. By reaching out to at-risk borrowers in this way, borrowers can be equipped with information when they need it.

Conclusions

The multivariate modeling technique used in this study provides important insights into patterns of default. Like some earlier reports on defaults, this study suggests that default behavior is more closely linked to the characteristics of students than characteristics of institutions. The most effective predictors of defaulting are whether a borrower withdraws from school, especially when the student last borrowed at the first or second year grade level. This finding agrees with past studies connecting poor academic preparation and lack of persistence of borrowers with a higher occurrence of student loan defaults.

Additional Research

Additional research and acquisition of data would be needed to improve the accuracy of this model. Investigating factors associated with student loan default demonstrates the complexities of this issue and the need for more empirical information. Some factors that could help the model in predicting default are:

- Employment status
- If employed, monthly salary
- Major field of study in post-secondary education
- Gender
- Marital status
- Dependency status

Telephone Surveys

To provide more texture to the description of the characteristics of defaulted borrowers and to investigate whether our predictive model had important factors that were not operationalized, TG conducted in-depth telephone interviews with 42 borrowers. This sample was not intended to be statistically representative. Instead, the purpose was to talk one-on-one with borrowers to better understand their special circumstances, to provide a fuller portrait of student loan borrowers as they face the challenges of leaving school and working to pay off their loans. While TG's econometric model does an excellent job of predicting defaults, it is limited by the kinds of data that are available for analysis. It was hoped that through these focused interviews additional dimensions to the default issue might emerge.

Borrowers were not selected randomly. Instead, they were picked in a way that might reveal the most about the prediction model discussed above. Borrowers were chosen based on whether their experience confirmed or contradicted the predicted repayment behavior.

Figure 3

		Did the model predict default? Yes	Did the model predict default? No
Did the borrower default? Yes		Predicted/ Did default	Predicted/ Did not default
Did the borrower default? No		Not predicted/ Did default	Not predicted/ Did not default

By segmenting the survey population into these four equal groups (see Figure 3), it was hoped that we could learn what was different and what was common among these groups.

The first group of borrowers interviewed were those that the model predicted would have defaulted and who did, in fact, default on their student loan. This group had the highest rate of unemployment among the four groups and they tended to be angry about the quality of education they received. If they had jobs, they were usually not related to their education. The loan counseling they received was typically unclear or not understood. Only one-half of this group considered using a deferment and even fewer thought of requesting a forebearance. Not one borrower in this group voiced a good experience with their servicer. These borrowers expressed exasperation with the process and seemed resigned to having the IRS take their refund checks. Their attitude was one of hopelessness concerning their economic future. Significantly, this group reported the highest number of combined life traumas. While some borrowers in all groups expressed some life traumas like divorce, large medical experiences, job loss, new dependents, etc., the first group expressed the most combinations of life traumas from incarceration to job loss due to donating a kidney to an uncle.[25]

The second group interviewed consisted of borrowers who the model predicted would default, but who had not. While these borrowers typically had low incomes, they tended to be working in jobs related to their training. While this group had a mix of life traumas, they often had some other source of support such as parents or spouses willing to help. These borrowers knew about their loan obligations. For example, most considered using forebearances — the highest percentage of any of the four groups. This group was committed to repaying their loans, despite being the least satisfied with their education. Interestingly, these borrowers viewed exit counseling more favorably than other borrowers.

The major differences between the first two groups (those that the model predicted to default) seemed to be:

- Repayers had jobs related to their training both during school and afterwards, while defaulters did not.
- Repayers were more knowledgeable about their loan options and were committed to repaying, while defaulters were not.

Similarities between these two groups were:

- Both attended short-term programs and were earning relatively low wages.
- Both experienced a good deal of life traumas.

Borrowers predicted by the model to not default, but who did, comprised the third group interviewed. Borrowers in this group were satisfied with their education and usually were working in a job related to their training. Most had attended college for at least four years and three of the borrowers had graduated from medical school. This group had the lowest unemployment rate of the four groups. However, the third group had a very high incidence of life traumas including trouble finding a job. Fortunately, these borrowers also appeared to have strong networks of support to help them through their difficult times. Most of these borrowers reported good experiences with their lenders and servicers and with their loan counseling. However, some of these borrowers had defaulted on only one of many loans suggesting a lack of awareness of their loans.

The final group of borrowers interviewed consisted of those predicted to avoid default and who, in fact, had avoided defaulting. This group overwhelmingly indicated that repayment was easy. This group had no trouble finding jobs and had little exposure to job loss. These borrowers were pleased with their education and loan experience, although they felt that their exit counseling was vague or unmemorable. While this group had more credit cards than the other groups, the balances on these cards were less than what they currently owed on their student loans. The fourth group was also the most successful in avoiding life traumas.

The two groups that were predicted to not default seemed to have different levels of success in finding and keeping jobs that would pay enough to let them repay their loans. Also, those that defaulted tended to have several life traumas (especially job loss, new dependents, and large medical expenses), while repayers seemed free of traumatic experiences. They were similar in that they attended long-term programs and were currently holding down jobs related to their education. Also, both groups seemed knowledgeable about their loan options and obligations.

From the telephone interviews, we learned that repayers typically have jobs related to their education and often had related jobs while in school. The transition from school to work was very smooth for repayers. Repayers also seemed to know more about their loan obligations than did defaulters. For defaulters, fate had dealt them significant life traumas. Defaulters often had trouble finding and keeping jobs with wages sufficient to allow them to pay back their loans.

In this section, we outlined a model by which TG can predict defaults with a reasonable level of accuracy. From the telephone interviews, we learned that certain key factors related to default couldn't be captured by the quantitative model, e.g. the incidence of life traumas or the degree to which a borrower's job is related to his or her education. Given this limitation, the model will always fail to predict some defaults and some repayment successes.

V. Policy Implications

Summary

The 203 recommendations from the 1988 SDI conference can be grouped into three major categories: (1) improve communication, (2) limit borrowing for at-risk students, and (3) provide proper incentives for repayment and disincentives for default.

Most of the proposals addressing communication issues were adopted. Students now benefit from access to loan counseling at matriculation and graduation, can download information and forms from the Internet, and must be informed by student loan participants at key moments in the life of the loan. Among student loan partners, communication has improved with changes in technologies and customer demand for standardization and high-quality customer service. Even organizations not directly involved with student loans now routinely share information with TG, thereby improving the operation of the student loan program in Texas.

One way to reduce defaults is to limit who can borrow and how much debt they can assume. Balancing this restriction with the desire to promote equal access to higher education can be challenging. SDI conferees made several recommendations which sought an equitable balance. Measures designed to reduce defaults among early dropouts — e.g. late disbursements, multiple disbursements, and freezing loan limits for first-year borrowers — did not seriously compromise access to college.

Conferees offered numerous suggestions for structuring a system of incentives and disincentives for students. While not all proposals were adopted, several were, and word about the negative consequences of default has reached students. Positive incentives have also been effective. Lender-provided interest rate discounts for good repayment history provides tangible rewards to students who repay regularly.

"Section III: Historical Trends" documents the impact of these and other default prevention measures on loan volume and default rates. Today's default situation is far different than it was in 1988. Defaulters are now much more likely to have attended a four-year school instead of a proprietary school. This paradigm shift has implications for the types of strategies to employ to lower defaults.

"Section IV: Predicting which Borrowers Will Default" analyzes the characteristics of defaulters today. The use of logistical regression provides a way to systematically sift through the data to pinpoint those characteristics most strongly associated with defaults. Academic progression was a key determinant of whether or not a borrower will default. Persistence through college greatly enhances the likelihood that the student will be able to repay his or her loan. School type was another important factor. The proprietary school experience appears to have a negative effect on default behavior holding all other currently measurable characteristics constant. So, too, for schools with past cohort rates that are high. However, the quantitative model suffers from a lack of data on potentially significant factors.

In-depth interviews were conducted to supplement the quantitative model. These interviews highlighted several important dimensions of the issue of defaults:

- Finding and holding a job are extremely important factors affecting one's ability to repay loans.
- Among repayers, a deep personal commitment to repaying one's loan was very noticeable even among borrowers who have had traumatic life experiences that might have driven other people into default.
- While many borrowers were able to withstand a traumatic life experience (e.g. job loss, large medical expenses, a new dependent, divorce, incarceration, etc.), multiple traumatic experiences often helped send borrowers into default.
- Repayers tended to have a much better understanding of their loan options than defaulters.

Policy Implications

1. Defaults are not confined to one school sector.

In 1988, it was easy to consider defaults largely the problem of one school sector. Default rates at proprietary schools were extremely high and reports of abuses widespread. However, today defaults are not clustered in one school sector. While default rates at proprietary schools remain higher than in other types of schools, the rates are much lower than during the peak of proprietary school borrowing. Loan volume at proprietary schools has been significantly reduced by cohort default rate sanctions and school closings. The problems associated with defaults can no longer be reduced to overzealous recruiters who exploit welfare recipients by charging outrageous tuition for inferior training that leads to dead-end jobs. Defaults are more likely to occur at four-year schools that have the most loan volume and lowest default rates — good schools with some students who get into trouble with their loans. The policy response to the current default environment would not attempt to put schools out of business with harsh sanctions, but would search for ways to lessen the problems of a minority of students. One way might be to better inform borrowers of the availability of deferments and forebearances to help borrowers through life's rough spots. At some schools, the issue of debt burden is emerging. For a detailed analysis of student loan debt burden in Texas and the policy implications which arise from recent changes in debt levels, see *Education on the Installment Plan: The Rising Indebtedness of Texas Borrowers*, a report by TG.

2. The need for wise education investments

In general, investing in a college education pays off handsomely. Student loans are a good way for most students to finance their educational investment. The full cost is deferred and spread-out over a number of years as one would with any other investment with long-term benefits. Loans allow students to limit or eliminate the need to work while in school freeing up more time for study and integration into campus life, which are essential for academic success. With this success, students become economically more productive and flexible. For students with few financial resources, loans may not be an effective means to open access to higher education. But by and large, student loans are excellent financing tools.

To lower defaults, it is important to maximize the benefit of a college education by investing wisely. Students need to carefully select schools on the basis of the estimated return on investment. Students should be provided with information that will allow them to consider the performance of schools based on various measures, e.g. retention, graduation, and default rates; placement rates; and starting salaries of graduates. Part of this investment decision should involve choosing fields of study with clear expectations of the labor market for related occupations. A prudent investor would also want to select a high quality school at a reasonable price.

Academic success makes the overall public subsidy/investment yield higher returns. Neither the public nor students benefit when students do not complete their program of study. While there will always be an element of risk in going to college, public policies which promote academic progress will increase the common good.

3. Limit borrowing for students most at-risk of defaulting.

Both the econometric model and the anecdotal evidence from the in-depth interviews seem to confirm the connection between dropping out and defaulting. Measures which limit borrowing for early dropouts — such as late and multiple disbursements and low-loan limits for first-year borrowers — appear to be sound, provided that schools actually have a problem with early dropouts. These measures can be administratively burdensome and cause hardship — perhaps even forming barriers to college for some students. If schools show that early dropouts are rare on their campuses, then the problem that these limiting measures seek to address would appear to be minimal.

Both the U.S. Senate and the House bills reauthorizing the Higher Education Act, currently being considered by the Congress, increase the authority of financial aid administrators to place limits on borrowing for some students. This power may prove to be an effective way to reduce defaults associated with imprudent borrowing. The exercise of this authority should be monitored to ensure that access is not compromised and that it is not used in an arbitrary or discriminatory way. Financial aid professionals will want access to relevant research in setting their policies, and it is hoped that this report can be of assistance to them.

4. Promote academic success.

While limiting borrowing for students at danger of defaulting may be wise policy, ultimately the challenge is to promote academic success. Students who progress to higher grade levels and complete their programs of study become more economically productive and less likely to default. Program completion is especially important for the more vocationally focused schools; failure to complete may mean the inability to become certified in an occupation, thus rendering the specialized training of little use. The longer-term, less specialized programs aim to create well rounded, critical thinkers. For these students, mere advancement to an additional grade level reduces the chance for default. Policies and services that promote college retention and persistence will have the added benefit of lowering defaults. Remedial education is essential for many students who can then become more successful in their core classes. Through in-depth telephone interviews we learned that students can go through major life traumas. Schools that provide support systems (e.g. adequate health insurance, childcare, counseling, etc.) can keep students progressing academically. Closely monitoring the overall progress of students can aid schools in identifying potential dropouts. Perhaps most significantly, schools that provide quality instruction will be better able to ensure the success of its students.

5. Help students find and keep jobs.

The transition from school to work can be hazardous. Efforts to smooth this transition will go a long way towards empowering borrowers and making them better able to repay their loans. Employment while in school may be beneficial, especially if the work is related to the student's instruction and if the number of hours is low enough to allow for adequate study. A smooth transition to work is critical for students in vocational programs who are less able to be flexible in a rapidly changing economy. Providing students with quality labor market information will make expectations more realistic and better enable students to plan for the transition to the work world. Part of this planning should involve loan and personal finance counseling.

Appendix A

Table A General Recommendations

Recommendation	SDI Recommendations	What happened?
1. Better communication	All participants in the Program must engage in better, more effective communication with one another.	TG efforts to keep schools and lenders better informed. 1. Lender-School Advisory Committee written in TG statute. (1989) 2. *Shoptalk* replaced Executive Director Memorandums (EDMs) and external newsletters as more reader-friendly way to disseminate regulatory updates. (August 1990) 3. School reports from TG's Preclaims Department. (1992) 4. Monthly Default Management Reports. (1993) 5. Electronic transmission of Request for Assistance (RFAs). 6. Annual TG conferences. 7. TG ad hoc reports customized to meet school and lender needs. (1994) 8. Development of Tex-Net. (1990) 9. Development of Internet communication capabilities. (1995) 10. TG actively participates in meetings/conferences with other professional associations such as ATLE and TASFAA. 11. TG assumed a leadership role as one of 10 guarantors who developed the *Common Manual-Unified Student Loan Policy*. This manual publishes standardized student loan rules and policies for schools and lenders and has been adopted by all guarantors.
2. National Student Loan Data System	Update references every semester to facilitate skip tracing. The Congress should appropriate funding to the Department of Education to begin immediate development of the National Student Loan Data System to centralize borrower tracking.	After years of no appropriations and administrative delays, money was finally appropriated, a system was developed, and the first loans were loaded onto the system in November 1994. Guarantors, lenders, and schools participated in improving the quality of the data that populated this database. All FFELP loans active as of 10/1/89 were initially loaded onto the system. Direct Loans, Perkins Loans, Pell Overpayments and loans held by ED's Debt Collection Service followed. Monthly updates from guarantors, schools, the Direct Loan servicer, other Title IV systems, and indirectly from lenders and servicers, keep data current. NSLDS now contains over 100 million loans for 37 million students. The system is used to pre-screen and post-screen student aid applications, calculate Cohort Default Rates, maintain the SSCR process, produce Student Aid Reports (SAR) and Institutional Student Information Records (ISIR), provide Financial Aid Transcript (FAT) data, and support Borrower Tracking. Further progress on NSLDS was made in April 1996 when Congress allowed schools to access NSLDS for financial transcript data.
3. Entrance counseling	Schools, lenders, and guarantors should provide more information to student borrowers on their repayment responsibilities upon entry to college.	On August 24, 1989, Congress required entrance counseling for all first-time borrowers.
4. Information to borrowers during the grace period	Borrowers should be contacted by the appropriate parties during the six-month grace period after leaving school and before repayment begins to remind them of their repayment obligations.	Congress required exit counseling for all borrowers. TG also reports information to schools on total dollars borrowed, number of loans, number of current holders of those loans for borrowers leaving school. Schools provide this information to their students to encourage them to repay their loans and to clarify any questions they may have. Often schools hire staff or consultants to specialize in default prevention. In the Fall of 1996, TG developed a Student Loan Inquiry system on the corporate Internet site to allow students to learn more about their actual loan obligations.

5. Allow nominal payments while in school	Borrowers should be required to make nominal payments on their loans while still in school in order to allow them to become accustomed to making payments.	Although various groups have supported this concept periodically, Congress has not mandated this requirement. Concerns about added complexity and administrative cost have prevailed.
6. Provide more need-based aid especially for high risk students	Both the state and federal legislative bodies must provide more need-based grant funding in order to reverse the growing imbalance of loan assistance over grant assistance in the student aid program. Too many high-risk students are forced to rely too heavily on loans to finance their postsecondary educations (sic), creating problem of student debt burden among low-income student borrowers.	Since FY 1989, need-based grants in Texas (state and federal) rose from $294 million to $442 million in FY 1996. Most of this increase came from the federal government which grew its need-based grants from $248 million in FY 1989 to $346 million in FY 1996. The State of Texas increased its need-based grants from $46 million in FY 1989 to $96 million in FY 1996. Unfortunately, during this same period college costs rose at a faster pace, forcing more students to borrow more heavily to finance their education.
7. Develop student awareness of the responsibility for repaying loans	Students must be made aware by the lender and school financial aid office that a Guaranteed Student Loan is a loan - not a gift - that must be paid back by the student. This point cannot be stressed too strongly.	With entrance and exit counseling, students are more informed about their financial obligations than ever before. However, improvements are still needed to ensure that this counseling is more effective. More and more, this distinction between loans and grants is being emphasized at high school and college student aid information workshops.

Table B Administrative Practices

Student Aid Partner	#	SDI Recommendations	What happened?
Schools			
(Recruitment)	1	Students should be made aware that there is a price to pay for achieving their individual goals.	Media attention to the issue of student loan indebtedness and the significant value of an investment in education have been widely publicized and promoted.
(Recruitment)	2	Success stories of students who have completed their education and repaid their student loans should be included in the recruitment process.	Federal legislation in July 1996 took a consumer protection approach by requiring schools to disclose completion/graduation and transfer-out rates to current and prospective students on request of the prospective student. More can be done to promote stories of successful repayment by graduates.
(Recruitment)	3	During high school career days, have financial aid sessions to show students how to achieve their goals.	Colleges, lenders, HEAs, and TG actively participate in high school career days.
(Recruitment)	4	Sell education but make students aware of the cost factors and the consequences of not fulfilling the obligations with regard to those cost factors.	See 2 above. This is demonstrated by wage garnishment laws and placing holds on transcripts.
(Recruitment)	5	If possible, help students secure part-time jobs while in school because employment is an integral part of developing good repayment habits.	Colleges have used the work-study program and have established cooperative education partnerships with employers.
(Admissions)	1	Admissions representative should be salaried instead of sales oriented. Develop pay incentive based on the number of recruited students staying in school.	Item # 10 in the ED Program Participation Agreement prohibits commissioned recruiters.
(Admissions)	2	Start here in educating students about the real costs of programs.	The TG Internet provides cost, budget, and repayment calculators. Entrance counseling educates students about costs.
(Admissions)	3	Develop effective screening practices and evaluation techniques of admission exams. Testing isn't always the best indicator. Conduct follow-up evaluation.	Admission policies vary among schools. Most schools have adopted multi-purpose admission criteria.
(Admissions)	4	Some type of remediation assistance should be addressed.	Current law allows student aid for remedial courses. Recent Clinton administration proposals to deny Title IV funds for remediation classes have been unsuccessful.

(Financial Aid)	1	Entrance interview - provide student with information concerning student loan.	Federal legislation passed in August of 1989 requires students to receive entrance counseling for all first-time borrowers. *Mapping Your Future* web site, and TG's web application products' provide online entrance counseling.
(Financial Aid)	2	Develop stricter financial aid requirements.	Some of the stricter requirements include cross matching through NSLDS for defaults, loan limits, citizenship, and SSN.
(Financial Aid)	3	Exit interview - refresh student with pertinent loan information.	A school must conduct exit counseling shortly before a borrower ceases at-least-half-time study, in person, individually, in groups, through videos, or on the Internet. However, exit interviews are rare for those who dropout. Schools must mail materials to them.
(Financial Aid)	4	Send follow-up letters to remind student of his or her obligation.	TG sends graduation letters with loan information for students to schools. Schools use these in exit counseling and are required to mail exit counseling material to the borrower within 30 days after learning that the borrower has left school or failed to attend an exit counseling session.
(Financial Aid)	5	Conduct workshops for administrative officers so they will be knowledgeable about the GSL Programs. Explain the importance of the ability to benefit and how it affects the default rate.	TG offers training workshops, as does NASFAA. Schools have been required to adhere to certain regulations regarding ability to benefit and have received training in conjunction with those regulations.
(Financial Aid)	6	Perform verification prior to certification of GSL.	Applications to be verified are chosen randomly by the Central Processing System according to criteria established by ED. Schools may perform verification before certification, or they can certify and begin verification. Schools must not release funds until verification is complete.
(Financial Aid)	7	Employ default prevention administrator.	Many schools have done so or have hired contractors to do so.
(Financial Aid)	8	Send deferment form to students based upon FAT.	The need for this has diminished due to the check off provision on the initial application.
(Financial Aid)	9	More stringent satisfactory academic progress requirements.	More quantitative and qualitative regulations have been added.

(Financial Aid)	10	Check release - Student must provide copy of loan disclosure statement and explain disclosure details of agreement prior to check release. Students must complete questionnaire about total amount of loans due and indicate understanding of repayment terms.	EFT is the most prevalent disbursement method now. In July 1996, federal legislation addressed school and student information exchange when the EFT occurs. Schools must notify a borrower when the student's account is credited, and students must notify the school when they receive the notice.
(Financial Aid)	11	Communicate with other departments.	More information needed.
(Exit Interview)	1	Conduct group exit interviews which reinforces student's financial obligations.	The 1992 Reauthorization required schools to implement exit counseling and transmit pertinent loan information to the guarantor within 60 days. Schools use a variety of ways to conduct exit interviews including group sessions.
(Exit Interview)	2	Stress the importance of good credit.	The importance of good credit is stressed during exit interviews.
(Exit Interview)	3	Promote group discussions to include the student, financial aid representative, a lender representative, and students who have successfully met their financial obligations.	More information is needed.
(Exit Interview)	4	Give certificate of indebtedness to students who have borrowed. Make it something honorable.	This practice is rare.
(Exit Interview)	5	Withhold diploma if exit interview is not attended.	Some schools do this.
(Exit Interview)	6	Show effect of interest compounding as affected by nonpayment.	This information can be found in the *New Directions: Guide to Repaying Your Student Loans* booklet prepared by TG. Many lenders, such as SLMA, have Internet sites.
(Exit Interview)	7	Perform exit interview when releasing check to student.	Exit interviews are normally conducted at the time of the borrower's graduation from the institution.
(Out of School)	1	Actively encourage re-entry (if student did not complete certificate or degree).	TG and other awareness activities also promote students' completion/graduation.
(Out of School)	2	Encourage student involvement - communication.	Many schools keep in contact with former students.

(Out of School)	3	Discuss bad points of not repaying loan.	Covered in the exit counseling session, the promissory note, the *New Directions* booklet and on the *Adventures in Education* web site.
(Out of School)	4	Provide an in-depth letter series - tracking	Many schools keep in contact with former students.
(Out of School)	5	Send newsletter emphasizing success stories.	More information needed. Texas Migrant Workers Council provides this information.
(Out of School)	6	Create placement offices for defaulted students.	Many schools have placement offices which are typically open to all current and former students.
(Out of School)	7	Contact lender/TG in a timely manner if a student withdraws.	July 1996 Federal legislation required that schools must promptly provide the Department, lender, or guarantor with information regarding the borrower's name, address, or employer's name/address upon request. This also applies to changes reported by the student. NSLDS/National Student Loan Clearinghouse transmits information regarding student withdrawals.
(Out of School)	8	Send letters to those students who are 60 days past due from the list sent from TG.	Table G, items 3,12, and 14, address diligence activities required by lenders.
(Out of School)	9	Reunions for student loan borrowers.	Many schools hold reunions.
Lenders	1	Stress loan ownership throughout the student's educational career.	TG's *New Directions: A Guide to Repaying Your Student Loans* and *Adventures in Education* Internet site reiterate this message.
	2	Stress the importance of good credit.	TG's *New Directions: A Guide to Repaying Your Student Loans* and *Adventures in Education* Internet site reiterates this message.
	3	Mail post cards to the references verifying information and establishing a contact person for updating student information.	The Fair Debt Collection Act prohibits this.
	4	Mail the student updated information once a month until the six-month grace period has ended (keep the loan on the student's mind).	Lenders and servicers are required to send a notice(s) to students about repayment during grace period.

	5	Notify schools/borrowers if loans are sold and to whom.	The 1992 Higher Education Amendments requires both the seller and buyer to contact borrowers if their loan(s) are sold or transferred to another holder or servicer and the place to which they must make payment changes.
	6	Distribute monthly lists to schools for those students who are entering repayment.	TG makes default prevention reports available to schools.
	7	Notify student about level of indebtedness each semester indicating what the monthly payment amount will be.	Student Loan Inquiry on TG's web site provides borrowers with up-to-date information on their total indebtedness. A letter outlining all loans and their holders is provided at graduation.
	8	Lenders should hold notes longer.	Practices vary.
	9	Perform credit checks prior to loan approval.	The 1992 Reauthorization required lenders to conduct a credit check on PLUS loan applicants. Further, lenders may deny PLUS loans to borrowers with bad credit. However, July 1995 legislation allowed a PLUS loan applicant with adverse credit to obtain a creditworthy endorser. Later legislation in July 1996 allowed students to receive an additional unsubsidized Stafford loan if one parent had been denied a PLUS loan. If, a parent becomes eligible for a PLUS loan, future Stafford loans would be cancelled.
	10	Increase responsibility not to sell to different servicers. More willingness to cooperate to sell or buy loans to reduce payment. Some students are not eligible for consolidation, and sometimes it is not to their advantage to consolidate.	In 1992, Reauthorization prohibited lenders from selling or transferring loans that have not been fully disbursed if the borrower would have a new organization receiving those payments. TG's Project Merge helped reduce the number of borrowers with multiple lenders.
	11	More contact with students during in-school period.	More information is needed.
Guaranty Agency	1	Establish a network to exchange information on defaulters between agencies.	NSLDS is the facilitator of default information. However, guaranty agencies have very limited access to loan information of other guaranty agencies and then only after a borrower has received a guarantee.
	2	Send notice to student and school when student is scheduled to start repayment prior to graduation as a reminder.	TG's Dear Graduate letter supplies notice on repayment.

	3	Provide better information to schools concerning loan consolidation.	TG provides information on consolidation through a variety of means.
	4	Provide nationwide list of lenders who consolidate loans and their restrictions.	More information is needed.
	5	Provide a list of lenders and list the markets that purchase their loans.	TG provides this information on its corporate web site through the Lender Fact Sheets.
	6	Send disclosure statement copy to schools for interest rate information and for use in exit interview.	Not adopted.
Legislative	1	Schools should receive an administrative allowance to offset the costs involved in the GSL Program/offset cost of default program.	Not adopted.
	2	Increase federal budget allocation in grant programs to schools to insure that first year students need not borrow.	Although there have been increases in grant programs, these are insufficient to eliminate the need to borrow. Appropriations have not kept pace with increased annual authorized maximums.
	3	Give schools the authority to deny a loan based on professional judgment.	Financial aid administrators, under the authority of section 479A of the Higher Education Act, have the limited authority to use professional judgment in denying a loan. Currently, the House reauthorization bill, H.R. 6, proposes to allow financial aid administrators to certify a lower loan amount for individual students.
	4	Give schools the authority on disbursement dates	Federal legislation in March 1990 mandated that schools determine the disbursement dates for loans. As of July 1, 1997, schools are required to establish disbursement schedules for FFELP loans that provide for disbursements to be made on a payment-period basis, rather than on the basis of the enrollment period.

Table C Preloan Counseling, Packaging, Early Financial Planning

Student Aid Partner	#	SDI Recommendations	What happened?
Schools	1	Package first year students with grants, scholarships, and work study. Avoid loans.	While schools have this option, federal and state grant aid has not been sufficient to allow schools to repackage in this way. Congress has considered, but not adopted, proposal to "front-end" grants to freshmen and sophomores.
	2	Correlate amount of loan to satisfactory academic progress standards.	No, unless student does not meet SAP at all.
	3	Require students to attend preloan counseling before application is certified. Provide document for students to sign as verification of attendance.	As of 8/24/89 schools must provide entrance counseling for all first-time borrowers. TG web products provide online counseling before school.
	4	Educate parents in the preloan process.	TG provides information on its Internet site for parents.
	5	Develop software to project expected earnings in relation to indebtedness.	Some entrance counseling software does this.
	6	During preloan counseling, require students to figure payback amount.	Practices vary.
Lenders	1	Require a credit report on all loan applicants.	The 1992 Reauthorization required lenders to conduct a credit check on PLUS loan applicants.
	2	Require cosigner on all loan applications from adult with legal interest.	Not adopted.
	3	Educate parents in the preloan process.	TG provides information on its Internet site for parents.
Legislative	1	Graduated borrower scale - amount determined using classification and percentage of total cost of education.	Graduated repayment plans, income sensitive repayment, and step up loan limits are available. Currently, both the House and Senate 1998 reauthorization bills allow a broader application of "professional judgement" which would enable financial aid administrators to reduce loan amounts in some circumstances.

2	Prorate student loan amounts according to enrollment status.	Federal legislation in January 1990, prorated SLS annual limits depending upon the length of time borrowers attend school in a given academic year. Additional legislation passed during the 1992 Reauthorization prorated Stafford loans for some first year full-time undergraduates. Further legislation in 1992, required that annual loan limits for SLS first and second year full-time enrollment be prorated. Additional federal legislation related to this SDI recommendation occurred in July 1993 when Stafford annual loan limits were increased for second year students. Further, SLS annual loan limits were increased for future undergraduate enrollment. Currently, both the House and Senate 1998 reauthorization bills allow a broader application of "professional judgement" which would enable financial aid administrators to reduce loan amounts in some circumstances.
3	Require credit report on all loan applicants.	Actually the opposite has occurred. No credit check on students is allowed.
4	Require cosigner with legal interest.	Not adopted.
5	All students must report parental income and assets. Delete the independent student concept.	Not adopted in full. However, independent student is better defined.
6	Require student borrowers to purchase savings bonds equal to that of debt obligation with the guarantee agency or federal government (holder of promissory note) as primary beneficiary in the event of defaulted loan.	Not adopted.
7	Graduated amounts to borrowers according to relative academic progress.	Federal legislation in July 1993 increases SLS annual limits for graduate and professional students. Shortly thereafter, in October 1993, Stafford loan limits for the same population increased.
8	Borrower limits based on correlation of indebtedness compared to career objectives compared to monthly GSL payments.	Not adopted.
9	Allow percentage of forgiveness for each year all payments were made on time.	Some lenders have interest rate reductions to reward timely payment histories.

Table D State and National Legislative Initiative

Student Aid Partner	#	SDI Recommendations	What happened?
National	1	Redefine default in a way to account for students that are paying back their loans.	Not adopted.
	2	Redefine Independent and Dependent student status.	Yes, since 1988 the definition has changed.
	3	Increase dramatically Pell amount. Allow student to receive all eligible Pell in first two years to avoid awarding GSL to student in early years. Allow student to receive GSL afterwards.	On 11/13/97, President Clinton signed the FY98 Labor-HHS-Education Appropriations Bill that provides funding for ED and the programs that ED administers. The Pell Grant maximum award was increased to $3,000 from $2,700. The $300 increase is the largest increase in two decades. Congress has considered, but not adopted, proposal to "front-end" grants to freshmen and sophomores.
	4	Count hours the student is enrolled at all eligible schools toward student deferment and change to 1/2 time status for all student deferments.	The In-School deferment covers both full-time and half-time study at an eligible school. A student enrolled in more than one school at the same time is eligible for the In-School deferment, provided that a single school certifies total enrollment for all of the schools. In addition, the schools involved must have a consortium agreement.
	5	No late disbursements. Allow institutional discretion for late disbursements within 30-45 days of the end of a loan period.	OBRA legislation addressed late disbursements by requiring schools to not deliver SLS late first disbursements if a student failed to complete the first 30 class days. Additionally, OBRA prohibited late second disbursements for Stafford and SLS loans. Further Federal legislation enacted in 1990, requires lenders to disburse Stafford and SLS loans in multiple disbursements. Later legislation again modified late disbursements.
	6	Modify default calculation to adjust for high risk students.	Effective 7/1/96, ED allows a school to appeal its cohort default rate under Exceptional Mitigating Circumstances provisions.
	7	Give schools the right to deny a loan based on professional judgment.	Although not frequently used, federal regulations allow a school to refuse to certify an application and promissory note or reduce the borrower's eligibility for a loan. The school needs to provide the reason for its action to the borrower in writing and retains documentation of the reason in the student's file. However, both the House and Senate 1998 reauthorization bills allow a broader application of "professional judgement" which would enable financial aid administrators to reduce loan amounts in some circumstances.

8	Reform the tax act to make interest on student loans tax deductible.	For undergraduate students, the Taxpayer Relief Act of 1997 allows a student loan interest deduction for interest payments made during the first 60 months, whether or not consecutive, in which interest payments are required on the loan.
9	Require credit checks and/or cosigner.	PLUS only
10	Require multiple disbursements on SLS and PLUS.	In October 1988, Congress passed legislation allowing multiple disbursements of SLS loans in excess of $1,000. Although the SDI recommendation was to require multiple disbursements, Federal legislation compromised the number of disbursements by placing a minimum cap on the amount of the SLS received. Multiple disbursements of PLUS loans became Federal law in October 1993. Currently, both the Senate and House reauthorization bills would repeal the multiple disbursement requirement for short-term enrollment periods.
11	Allow no compromises on loan payment.	Practices vary.
12	No punitive action should be taken on Pell participation and other federal aid if a school has a GSL default problem.	Since 1992, schools with a 40 percent cohort default rate in one year have been excluded from all federal student aid programs, including Pell Grants. The FY96 Appropriations Act provides that schools with a cohort rate of at least 25 percent for three consecutive years are now ineligible for Pell Grants.
13	Standardization of all forms. Provide a 1-800 # for students and lenders who have questions.	In 1992, Reauthorization required all industry participants to develop common loan applications, promissory notes, deferment forms, and reporting formats. 1-800 numbers are common. Currently, both the Senate and House reauthorization bills would extend this to all-electronic forms.
14	Vary guidelines by type of institution.	Not adopted.
15	Should not negotiate amount when collecting. Word is getting out!	Practices vary.
16	Increase lender incentive to collect/ownership.	Lender risk sharing was effective in 1993.
17	Consider changing the term "guaranteed" easily misunderstood.	Still a common expression.

	18	Deny loans to student if member of family has defaulted.	Not adopted.
	19	Allow schools to place records on hold if student is 60 days delinquent.	Not adopted.
	20	Require that students submit loan application to lender and a personal interview be conducted.	Not adopted.
	21	Student must declare major prior to loan approval.	Not adopted.
	22	Loan disbursement date - 30 days after first class day.	The Omnibus Budget Reconciliation Act of 1989 (OBRA) required schools to delay first year student disbursements until after 30 days from the start of the intended loan period. SDI, however, recommended no disbursement after 30 days from the first class day. Currently, both Senate and House reauthorization bills would repeal the delayed disbursement requirement for schools with very low default rates.
	23	Remove remedial course hours from the hours counted toward GSL eligibility.	Not adopted.
	24	Allow schools to change grades to F for those students in default.	Not adopted.
	25	Allow schools to bar enrollment for defaulted students.	Not adopted.
	26	Do not permit GSL and SLS in the same year.	Not adopted.
	27	Provide institutions with an administrative allowance.	Not adopted.
State	1	Put a block on state licenses.	Effective 9/1/89, the Texas Education Code requires that a licensing agency shall not renew the license of a person who has defaulted on a loan guaranteed by TG.
	2	Change Homestead Provision as it relates to higher education.	Home Equity loans are now permitted in Texas.
	3	Delinquency notices on more timely basis.	Common practice.

4	Create a SUPER GRANT program for first and second year students.	Not adopted.
5	Give school the authority to hold transcripts.	Section 57.47(d) of the Texas Education Code allows this.
6	Refunds for direct vs. indirect costs.	Not adopted.
7	Accreditation based on performance of schools.	Common practice.
8	State law on "HOLD" of professional licensing and driver's license.	Effective 9/1/89, the Texas Education Code requires that a licensing agency shall not renew the license of a person who has defaulted on a loan guaranteed by TG.
9	Full garnishment of wages in state.	Currently garnishment is set at 10 percent of the borrower's disposable income.
10	Allow institutions to revoke degrees to loan defaulters.	Not adopted.
11	Equal access of state grants.	More information is needed.
12	More state gift aid.	State gift aid has declined from FY 1992 to FY 1996 by 11.6 percent. Furthermore, total state aid during this same time period has declined by 2.6 percent.
13	Standardization of forms throughout the state.	In 1992, Reauthorization required all industry participants to develop common loan applications, promissory notes, deferment forms, and reporting formats.
14	Require schools to block academic records.	Section 57.47(d) of the Texas Education Code allows this.

Table E Debt Management

Student Aid Partner	#	SDI Recommendations	What happened?
Schools	1	Require one hour credit course in debt management/personal finance.	Not adopted although some schools offer this.
	2	Provide a compiled listing to students of all financial aid received. Add rights and responsibilities.	This is the award notice and is required by academic year. TG's graduate letters list all loans received.
	3	Discuss student loans at career days - invite lenders.	Common practice.
	4	Include success stories at exit interview.	Practices vary.
	5	Provide student with a folder at initial contact to encourage accurate record keeping and reinforce the seriousness involved in borrowing money.	Practices vary.
	6	Involve student in collection efforts.	More information is needed.
	7	Provide debt management brochures all over campus.	Practices vary.
Lenders	1	Provide information to borrowers concerning selling practices, deferments, forbearance, contact person, etc.	1992 Amendments-Regulations detail when borrowers need to be notified of sale or transfer. Deferment and forbearance information is available on *Adventures in Education* under Managing Debt-Postponing Student Loan Payments. Lenders send deferment and forbearance information in some letters to borrowers.
	2	Allow mandatory merging of student loans at borrower request.	Not adopted, although students consolidate their loans.
	3	Provide electronic fund transfer availability.	This is common practice.
	4	Participate in the preloan/exit sessions at the schools.	Lenders are doing this.
	5	No penalty for consolidation.	Federal legislation in 1993 required lenders to offer Consolidation loans to borrowers with the options of repaying their loans with graduated or income sensitive repayment options. 1997 Emergency Consolidation Loan Act improved the terms to students for this option.

	6	Assuming student liability by parent at no penalty of rate.	Not adopted.
	7	Provide GSL line of credit/credit card.	The Master Promissory Note is in progress. FFEL submitted to ED in 1996; 1999-2000 implementation expected.
	8	Require multiple cosigners.	Not adopted.
	9	Perform credit checks prior to loan award on GSL.	Some schools do this at this time if it is done for default prevention purposes.
	10	Provide a resume of policies and procedures to schools and borrowers.	Schools have access to policy manuals, specifically, the *Common Manual*.
	11	Provide student with a 12-month payment booklet. After those payments have been made, provide borrower with a status report and new payment booklet.	Many lenders provide a 12 month payment coupon book; a new one is provided each year.
Legislative	1	Require at least one payment while student is in school.	Not adopted.
	2	Require mandatory consolidation participation.	Legislation addressed consolidation, however somewhat differently than the SDI recommendation. In January 1993, the Federal government allowed married couples to consolidate their loans into one single Consolidation loan. July 1994 Federal legislation further gave borrowers incentive to engage in loan consolidation by lifting a minimum loan amount for loan consolidations.
	3	Give financial aid office the authority to JUST SAY "NO"!	This is done on a case by case basis; school must document why and inform the student.
	4	Provide hotline for students to call concerning total indebtedness at all guarantee agencies and total monthly payments.	Schools can access NSLDS on behalf of the student.
	5	National database.	NSLDS
	6	Require multiple cosigners.	Not adopted.
	7	Create incentive plan for good payments.	Some lenders give borrowers a break/reward if every payment for a certain amount of time is made in a timely manner.

Table F Servicers — The Parties Involved; keeping Everyone Informed

Student Aid Partner	#	SDI Recommendations	What happened?
Schools	1	More dynamic preloan and debt counseling to include audiovisual and other types of instructional tools.	*Mapping Your Future* web site and publication of past videos are some of the collaborative efforts by industry participants.
	2	Update references every semester to facilitate skip tracing.	Not adopted.
	3	Improve the timeliness of reporting out-of-school status to lenders.	Must report within 60 days.
Lenders	1	Notification to school/borrower when a loan is sold or transferred to a servicer.	The 1992 Higher Education Amendments require lenders to contact borrowers if their loan(s) are sold or transferred to a servicer, in certain cases.
	2	Provide more contact to the borrower.	More information is needed.
	3	Timely response to borrowers concerning deferment requests.	Regulations-A lender must reply to a borrower request within 30 days of that request.
Guaranty Agency	1	Contact school before defaulted loan is turned over to the Feds.	Preclaim information is sent to school.
	2	Make TG Request for Assistance report a part of required reporting to schools.	Preclaim information is sent to school.
	3	Provide electronic transfer of information.	TG makes this available.
	4	Provide multicopy forms.	TG provides forms to the industry that can easily be photocopied or completed electronically.
Legislative	1	Relax eligibility for GSL. Make more students eligible and prorate government subsidy rate for less needy students.	Unsubsidized program offers eligibility to students who were not previously eligible. 1992 Reauthorization excluded family homes as assets in the need analysis thereby increasing loan amounts to more families.
	2	Establish student loan debt as a separate category of debt with its own rules.	In July 1993, legislation indirectly addressed how student loan debt was examined by requiring lenders to offer SLS and Stafford loan borrowers graduated or income-sensitive repayment options.

3	Require minimum monthly payments while in school - tie it to funding of national database.	Not adopted.
4	Allow open access to government records to facilitate skip-tracing and ultimately collection.	State agencies fall under the Open Records Act.
5	Commensurate state recourse and collection practices of delinquent/defaulted loan borrowers to the federal government with similar default types such as income tax. Subsidy is viewed to be same as if funds were directly advanced by federal government.	The State Comptroller's Office holds all state checks made out to borrowers with a defaulted student loan.
6	Require repeat borrowers to use the same lender.	Some guarantors do this, but it restricts student choice.

Table G Loan Servicing — The Process: Due Diligence, Student Status Deferments, and Skips

Student Aid Partner	#	SDI Recommendations	What happened?
Schools	1	More training for staff about what is involved in loan servicing.	Not a common practice.
	2	More verification reporting.	Applications to be verified are chosen randomly by the Central Processing System according to criteria established by ED. As provided in the 1992 reauthorization of the Higher Education Act, schools may be exempt from certain verification requirements if they are participating in ED's Quality Assurance Program.
	3	Utilize student associations to communicate repayment, default, etc. information to students.	Not a common practice.
	4	Explain in detail about deferments in the exit interview session.	Beginning in 1993, TG publishes a handbook entitled *New Directions: A Guide to Repaying Your Student Loans* to help students understand their student loan debt responsibility and explain repayment options.
	5	Verify student's address upon disbursement of loan. If it has changed, notify lender.	Federal regulations require schools to notify the lender and guaranty agency within 30 days of a student's change of address.
	6	Send student's personal information to the lender at time of exit interview.	The 1992 Higher Education Amendments require a school to notify the borrower's guaranty agency(s) within 60 days after the exit interview of changes in a student's personal information. Lenders can access this information.
Lenders	1	Involvement in preloan exit interview counseling.	Many lenders now offer their servicers to schools to facilitate or conduct entrance and exit counseling.
	2	Additional training for staff.	TG provides training opportunities.
	3	Early/more frequent telephone contact.	Effective 7/1/97, federal regulations require lenders to send the first delinquency notice no later than the 15th day of delinquency offering assistance to the borrower.
	4	More informative grace letters.	Letters are reviewed and improved.
	5	Enhance training for collectors.	Not adopted.
	6	Emphasize bank drafts (auto-payments).	Many lenders offer this option.

	7	More comfortable and open lines of communication with the students.	Lenders and TG provide different channels for communication — e-mail, Internet, 1-800 numbers, etc.
	8	Diversify collection letters and envelopes.	The Fair Debt Collection Act tightly regulates all communication with debters.
	9	Second shift collectors.	Widespread practice.
	10	More non-related references and verifying references through the form of post cards, etc.	More information is needed.
	11	More education on deferment forms.	*Adventures in Education* helps to educate borrowers about deferment forms and provides a way for students to download the forms from the Internet.
	12	Send letter at 45 days past due listing deferment availability.	Part of diligence.
	13	Send deferment form in due diligence progress.	More information is needed.
	14	Send grace letters prior to the end of grace period.	The Higher Education Amendments of 1992 require lenders to disclose repayment to borrower "not less than 60 days nor more than 240 days before the first payment is due."
Guaranty Agency	1	More specific handbook. Include more examples. Maybe smaller handbooks explaining specific situations.	Beginning in 1993, TG publishes a handbook entitled *New Directions: A Guide to Repaying your Student Loans* to help students understand their student loan debt responsibility and explain repayment options.
	2	Provide simplified deferment packet.	In a letter issued May 8, 1996, ED announced approval of common deferment forms.
	3	Automation - from guarantor to schools and vice versa.	In response to suggestions offered by lenders and schools, TG has made several enhancements to the Loan Information Network Clearinghouse (LINC) since its initial implementation in 1988. CommonLine '96 was developed by the National Council of Higher Education Loan programs and allows schools to expand automated connections for guaranteed loan processing nationally. ED's implementation of the National Student Loan Data System (NSLDS) allows direct access to current loan-level information on Title IV aid. TG also offers online access to borrower information.

	4	Standardize withdrawal forms.	Federal regulations define how a school determines a student's date of withdrawal. Schools are required to report the withdrawal date to NSLDS.
Legislative	1	Statewide skip tracing agency.	Not adopted.
	2	Minimum payment requirement while in school.	Not adopted.
	3	Hotline information concerning who owns the loan.	NSLDS provides schools with access to information on a student's loan. For TG borrowers, Customer Services provides information that is also shown in Dear Graduate letters.
	4	Twelve payments on time - 13th payment forgiven (incentive).	Lenders voluntarily offer incentive programs for borrower discounts.
	5	National student data network.	Implemented in 1994, the National Student Loan Data System (NSLDS) is a national database of information on Title IV student aid. The NSLDS was developed to provide current loan-level information on Title IV aid and to provide an integrated view of Title IV programs in terms of aid approval, disbursements, repayments, delinquencies, and school closings.
	6	For skip tracing, contact: DMV, Social Security Office, credit bureau, city utilities.	TG communicates with DMV, SS Office, credit bureaus, and other state agencies.
	7	Publish names of defaulters in newspapers and on TV.	Not adopted.
	8	Suspend and hold licenses.	Effective September 1, 1989, the Texas Education Code requires that a licensing agency shall not renew the license of a person who has defaulted on a loan guaranteed by TG.
	9	Allow financial aid office to post a MOST WANTED LIST.	More information is needed.
	10	For skip tracing, allow criss-cross at post office.	More information is needed.
	11	Include parent's social security number on application for use in skip tracing.	More information is needed.
	12	Educate Congress.	Ongoing

13	Discontinue or make students earn some of their deferments	Federal legislation passed in July 1993 limited deferments to new borrowers in-school (1/2 time enrollment), graduate fellowship or rehabilitation training, unemployment (not to exceed 36 months), and periods of economic hardship. Additionally, PLUS loans may not be deferred based upon the status of the student. Further deferment changes that occurred in July 1996 legislation required borrowers who requested unemployment deferments to provide six persons the borrower had contacted for employment, excluding each initial request. However, this same legislation allowed lenders to give administrative forbearances.
14	Allow guarantors access to Social Security files.	Although guarantors do not have access to Social Security files, the Social Security Administration and the Central Processing System work together at the time the FAFSA is processed to conduct a match that verifies that the student's SSN is correct and that the SSN corresponds to the given student's name and date of birth.
15	Require that borrowers designate a primary lender.	Borrowers are required to designate a lender in the "Borrower Section" of the Common Application.

APPENDIX B

Theoretical Background of Model Development

The formulation of this model is roughly grounded on concepts developed by Volkwein and Szelest. Their study of student loan defaults is based on four theoretical perspectives — 1) human capital and public subsidy, 2) borrower's ability to pay, 3) organizational structural/functional approaches, and 4) student-institution fit models from other literature. Each of these perspectives supports the choices of variables in our model that are influential to default behavior.

Brief descriptions of these perspectives are as follows. Human capital theory is based on the inherent value of a person's skills and knowledge and the theory relates acquisition of skills and knowledge to educational investment. Public subsidy theory states that low-income but capable students will benefit from the investment in education when the benefits of education exceed the cost of obtaining it. Borrower's ability to pay theory relates income levels of students and of parents to the borrower's ability to repay student loans. Organizational structural/functional approaches theory says that organizational characteristics exert influence on student choices and behavior including repayment of loans. Student institution fit models from other literature comprises many individual student traits to help explain repayment behavior. Volkwein and Szelest provide a more thorough explanation of these concepts.[26]

Methodology of Model

Methodology of the default model consists of the steps to implement a mathematical representation of describing default patterns. These steps begin with obtaining the data and end with the realization of the model.

One of the model's advantages is the magnitude of the sample size. Models from nearly all other studies are based on sample sizes ranging in the hundreds to less than ten thousand. Often, the small sample sizes would represent a 'universe' of borrowers. TG's data files contain approximately three-quarters of the borrowers in Texas during the time period between April 1990 to the end of September 1991. Since we have approximately 170,000 observations and the data represent the majority of borrowers in Texas, this model should produce a more robust inference of the patterns of defaults.

Our first step in model formulation was to select possible characteristics of default and to perform cross-tabulations of characteristics that have a possibility of being associated with default behavior. Statistical significance of the relationship between default and each characteristic was tested by Chi-square in several different cohorts. Since this model is focused on predicting future borrowers who separate from institutions, we attempted to use characteristics at the time the borrower left school. However, enrollment status variables — whether a student withdrew from school, whether a student graduated, whether a student had less than half-time status, whether a student returned half or full-time, and whether a student had other statuses — were not available, so we used data available from November 1995. Some other variables were eliminated because of colinearity or unavailability of data. Table 5 contains the means and standard deviations for the selected variables.

Table 5 Means and Standard Deviations of Variables

Variable	Mean	Standard Deviation
Default	.45	.50
Proprietary Business	.18	.36
Proprietary Cosmetology	.05	.21
Proprietary Trade	.26	.44
2-Yr Public College	.10	.30
2-Yr Private College	.002	.04
4-Yr Private College	.12	.32
1993 Cohort Default Rate (in 5s)	4.1	2.8
Average Estimated Cost of Attendance:		
$4,000 - $7,000	.38	.48
$7,000 - $10,000	.34	.47
$10,000 - $14,000	.16	.37
Over $14,000	.04	.20
Type of Loan:		
Unsubsidized only	.05	.22
PLUS only	.09	.29
Mix of loans	.07	.27
Grade level	2.1	1.8
1990 household income (in 1,000s) in ZIP code	12.5	5.6
1990 percent Afro-American in ZIP code (in 10s)	1.4	2.1
1990 percent Hispanic in ZIP code (in 10s)	1.1	1.0
Estimated Family Contribution (in $1,000s)	1.1	1.6
Multiple originating lender	.14	.35
Deferment during Nov. 1991	.07	.25
Age of borrower at time of repayment (in 10s)	2.7	.74
Debt:		
2-Yr College or proprietary (in $ 1,000s)	2.0	2.4
4-Yr College (in $1,000s)	2.7	5.1
Average Estimated Financial Aid		
$500 - $1,000	.09	.48
$1,000 - $3,000	.53	.47
$3,000 - $5,000	.14	.37
Over $5,000	.05	.20
Enrollment Status:		
Withdrawn	.44	.50
Graduated	.39	.49
Less than half-time	.11	.31
Other status	.00	.06

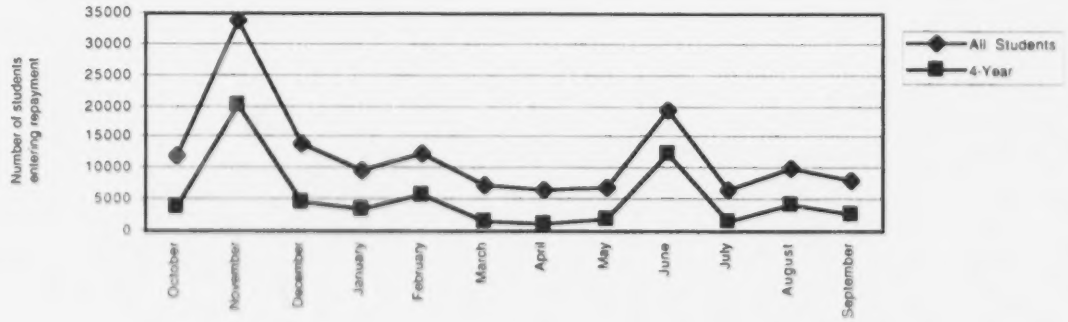
Region:		
High Plains	.04	.21
Northwest Texas	.03	.17
Metroplex	.24	.42
Upper East Texas	.04	.20
Southeast Texas	.02	.15
Gulf Coast	.20	.40
South Texas	.20	.40
West Texas	.03	.17
Upper Rio Grande	.03	.18
Outside of Texas	.05	.22

The following are technical details about the logistic regression model. Each observation represents a borrower. About 19 percent of the observations were eliminated due to missing values in explanatory variables. Continuous variables were plotted for linearity and were modeled as a continuous variable if the relationship between the characteristic and default was considered linear. If the continuous variable exhibited a non-linear pattern, then prediction by category was determined to best represent the relationship.

Some literature has emphasized the importance of race and income levels in determining default. Some variables are included in the model to represent these factors. U.S. Census tract data provides median income level and the percent share of both Afro-Americans and Hispanics within each borrower's ZIP code tract.

The choice of the April 1990 - September 1991 cohort was chosen to ensure uniform distribution of students between school-types. Most borrowers enter repayment in either November or June when four-year school students outnumber other entering repayers combined (See Figure 4).

Figure 4 Number of Students entering Repayment by Month in Fiscal Year 1991



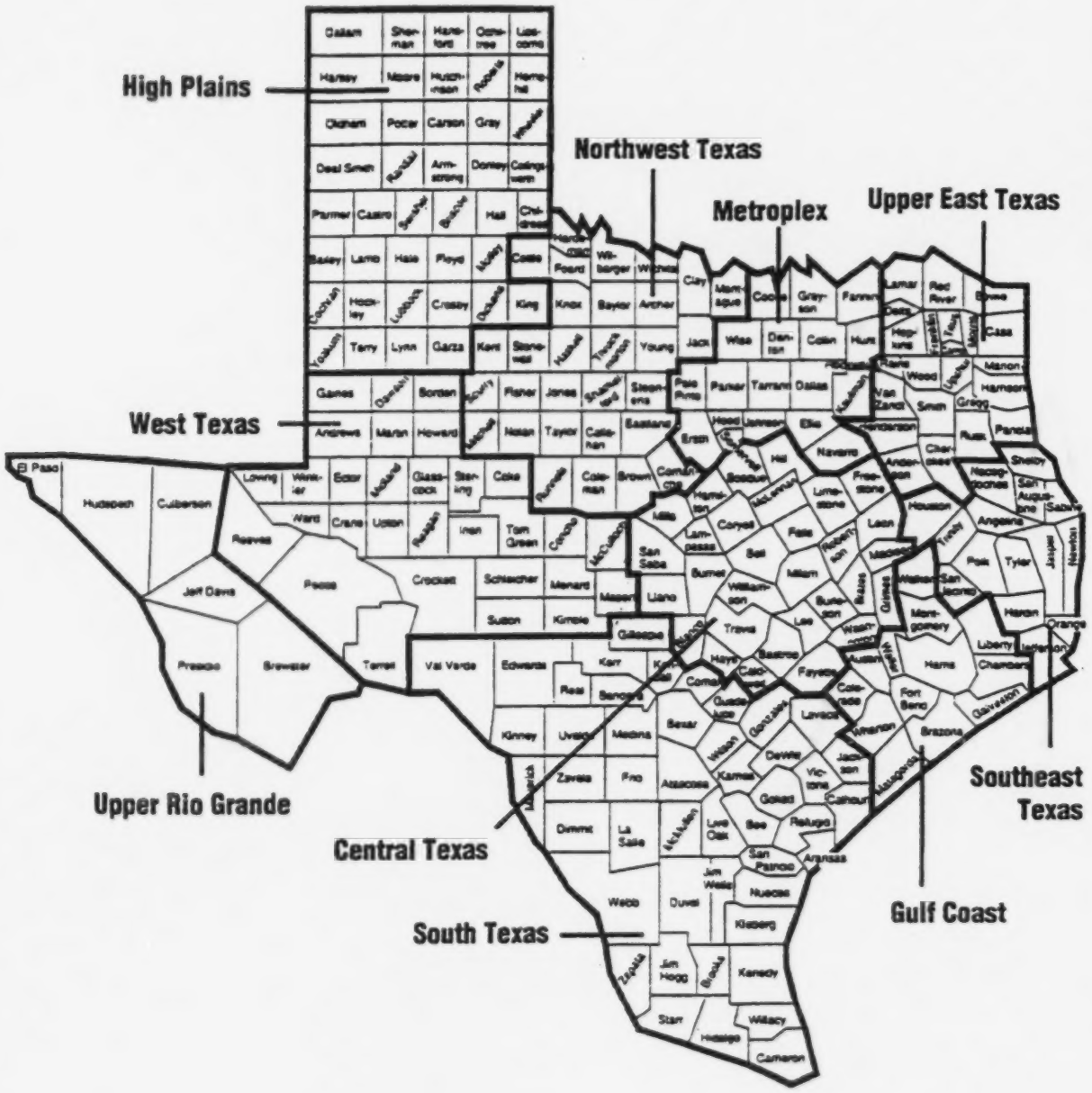
Some time-dependent explanatory variables are measured in November 1991. These variables are:

- Is there an underlying consolidation loan with the Stafford or PLUS loans?
- Does the borrower have multiple lenders?
- Is the loan deferred?

Another time-dependent explanatory variable was measured in November 1995, since we could not obtain the data for 1991. These variables are the enrollment statuses previously discussed in Table 11.

These variables are time-dependent since their effect on the model is dynamic with respect to the cohort time period. We take a 'snapshot' of these characteristics on either November 1991 or November 1995 in the model. For example, enrollment status is dynamic since it changes for a borrower as time progresses after the end of the cohort period. We consider variables such as type of school and location of student as more static, since these tend not to change for an observation over time.

Appendix C — Texas Regions



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Endnotes

1 For a complete list of recommendations and updates, see Appendix A.
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3 Joe McCormick, School or Scandal?, Texas Guaranteed Student Loan Corporation, Austin, TX, July 1989.
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6 GAO, "Student Loans: Default Rates at Historically Black Colleges and Universities," U.S. General Accounting Office, January 1997.
7 GAO, "Proprietary Schools: Poorer Student Outcomes at Schools that Rely More on Federal Student Aid," U.S. General Accounting Office, June 1997.
8 Willford W. Wilms, et al., "Whose Fault is Default? A Student of the Impact of Student Characteristics and Institutional Practices on Guaranteed Student Loan Default Rates in California," in Educational Evaluation and Policy Analysis, Spring 1987, Vol. 9, No. 1, pp. 41-54.
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10 Ibid.
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17 J. Fredericks Volkwein, et al., "Characteristics of Student Loan Defaulters among Different Racial and Ethnic Groups," Boston, MA: AIR 1995 Annual Forum Paper. (ERIC Document Reproduction Service No. ED 386 972).
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21 G.S. Becker. Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. (3rd Ed.). Chicago & London: University of Chicago Press, 1993.
22 These numbers indicate the number of standard deviations change in default by one unit of standard deviation of each factor.
23 GAO, "Proprietary Schools: Poorer Student Outcomes at Schools That Rely More on Federal Student Aid," U.S. General Accounting Office, June 1997.
24 Laura L. Greene, "An Economic Analysis of Student Loan Default."
25 This borrower was then fired for being unable to lift heavy boxes.
26 J. Fredricks Volkwein, et al., "Characteristics of Student Loan Defaulters among Different Racial and Ethnic Groups," Boston, MA: AIR 1995 Annual Forum Paper. (ERIC Document Reproduction Service No. ED 386 972).